National Library
of Canada

Bibliothèque nationale
du Canada

Canadian Theses Service

Service des thèses canadiennes

Ottawa, Canada
K1A 0N4

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

NL-339 (r. 88/04) c

Canada

UNIVERSITY OF ALBERTA

COPING WITH THE THREAT OF AIDS: NURSES AND THE RISK OF CONTAGION

by

LINDA I. REUTTER

©

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF SOCIOLOGY

EDMONTON, ALBERTA
FALL 1991

National Library
of Canada

Bibliothèque nationale
du Canada

Canadian Theses Service

Service des thèses canadiennes

Ottawa, Canada
K1A 0N4

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-70107-2

Canadä

UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: LINDA I. REUTTER

TITLE OF THESIS: COPING WITH THE THREAT OF AIDS: NURSES AND THE RISK OF CONTAGION

DEGREE: DOCTOR OF PHILOSOPHY

YEAR THIS DEGREE GRANTED: FALL 1991

Permission is hereby granted to the University of Alberta Library to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves all other publication and other rights in association with the copyright in the thesis, and except as hereinbefore provided neither the thesis nor any substantial portion thereof may be printed or otherwise reproduced in any material form whatever without the author's prior written permission.

Linda Reutter

Apt. 1707, 8920-100 street
Edmonton, Alberta
T6E 4Y8

DATE: June 10, 1991

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled COPING WITH THE THREAT OF AIDS: NURSES AND THE RISK OF CONTAGION submitted by LINDA I. REUTTER in partial fulfilment of the requirements for the degree of DOCTOR OF PHILOSOPHY.

Herbert C. Northcott, Ph.D. ....
Supervisor

George K. Jarvis, Ph.D. George K Jarvis

Dianne K. Kieren, Ph.D. Dianne K Kieren

Janet L. Storch, Ph.D. Janet L Storch

Stephen A. Kent, Ph.D. Stephen A. Kent

Kathryn Taylor, Ph.D. Kathryn Taylor
External Examiner

Date May 1, 1991

To the memory of my father

CARL WILLIAM REUTTER

whose love of life, joy of learning, and strength of spirit

are among my most cherished memories.

ABSTRACT

This thesis examines how nurses cope with their concerns about acquiring human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) when caring for persons with AIDS (PWAs). The study employs a qualitative research design. In-depth interviews were conducted with thirteen nurses who had cared for PWAs in an acute-care hospital in a large Western Canadian city. Data were analyzed using the constant comparative methodology of grounded theory.

The findings suggest that the risk of contagion threatens not only the nurses' lives and health but also their relationships with significant others and their professional self-esteem. Nurses' perceptions of risk relate to the seriousness of the consequences of exposure to HIV and the uncertainties inherent in the risk situation. The dominant theme underlying nurses' efforts to cope with the risk of contagion is constructing a sense of control over exposure. Nurses' coping efforts are related to five categories viewed as coping tasks: making risk "manageable", making risk "meaningful", maintaining professional self-esteem, managing others' responses to nurses caring for PWAs and, for some nurses, coping with "actual" exposure. "Manageability" results from the use of behavioral and cognitive coping strategies that address needs for reassurance and vigilance and that allow nurses both to reduce and to tolerate uncertainty. The "meaningfulness" of risk derives from the nurses' professional commitment to care and from the satisfaction resulting from the relationships developed with patients. A threat to professional self-esteem involves managing derivative emotions of guilt, shame and embarrassment. Nurses cope with others' concerns by reassuring them of minimal risk and convincing them of the value of the nurses' work. Actual exposures to HIV-infected body fluids represent a disconfirmation of the sense of control over risk. When exposed, nurses attempt to reestablish a sense of control in terms of risk manageability and meaningfulness.

The thesis concludes with implications for further research and suggests that the insights from this study can be used to provide support to nurses that will enhance the manageability and meaningfulness of their work.

ACKNOWLEDGEMENTS

Many individuals have contributed in a personal and professional way to my doctoral education. I would like to acknowledge their assistance.

My sincere thanks goes to the agency in which I conducted the study, and especially to the nurses who volunteered their time to help me understand their experiences caring for persons with AIDS. Without their thoughtful and thorough responses, this research could not have been done.

Financial support for my doctoral education was provided in part by Social Services and Humanities Research Council of Canada in the form of a doctoral fellowship, by the Alberta Heritage Scholarship Fund through a Ralph Steinhauer Award of Distinction, and by the Province of Alberta through a graduate doctoral fellowship. The financial assistance of these agencies is gratefully acknowledged.

I would also like to acknowledge the Department of Sociology for providing an enjoyable and stimulating learning environment. Particularly, my thanks goes to my supervisor, Dr. Herbert Northcott, who has given me sound guidance throughout my PhD program. His commitment and support were always encouraging. During my thesis work, his availability for consulting and "dialoguing", his prompt feedback and constructive critique, and his collegial regard have been exemplary. I also wish to acknowledge the helpful suggestions and support provided by the other members of my thesis committee: Dr. George Jarvis, Dr. Stephen Kent, Dr. Dianne Kieren, and Dr. Janet Storch. Thanks to Dr. Kathryn Taylor, my External Examiner, for travelling the distance to be present at my Defense and for her thoughtful comments about, and enthusiasm for, my work.

A special measure of gratitude is also extended to my colleagues in the Faculty of Nursing for encouraging and supporting me during my "time away" and for providing delightful "passage" celebrations to mark my progress; to my classmates in Sociology, whose friendship and support made the many hours, days, and weekends spent in "4-19" more enjoyable; to the amiable and helpful staff in the Sociology Department; to Kerri Calvert, who helped in many ways, particularly by "keeping an eye out" for material relevant to my

research; and to many friends who helped me to keep things in perspective.

Finally, my deepest thanks goes to my family for their continued prayers, patience and understanding throughout my studies. Their unfailing support and encouragement I count as one of God's greatest blessings to me.

Table of Contents

Chapter Page

I. INTRODUCTION 1
  A. STATEMENT OF THE PROBLEM 4
  B. RESEARCH QUESTIONS 4
II. LITERATURE REVIEW 6
  A. HEALTH CARE WORKERS' RESPONSES TO AIDS 6
    1. Perception of Risk of Acquiring HIV Infection and AIDS 6
    2. Coping Strategies 16
    3. Family Influence in Risk Appraisal and Coping 20
    4. Risk and Responsibility 22
  B. GENERAL THEORETICAL ORIENTATION 25
    1. Stress and Coping Paradigm 26
    2. Risk Appraisal 34
    3. Social Support and Work Stress 42
    4. Family/work Interface 48
  C. SUMMARY 52
III. METHODOLOGY 53
  A. RATIONALE FOR QUALITATIVE METHOD 53
    1. Theoretical Perspective 55
  B. SELECTION OF INFORMANTS 56
    1. Gaining Entry to the Agency 56
    2. Gaining Entry to the Study Group 57
    3. Characteristics of Informants 58
  C. DATA COLLECTION 59
    1. Procedure 59
    2. Interview Schedule 60
  D. DATA ANALYSIS 61

1. Discovering Categories 62
2. Linking Categories 63
3. General Framework of Findings 64
E. ETHICAL CONSIDERATIONS 66
1. Ongoing Voluntary Participation 67
2. Ensuring Anonymity and Confidentiality 68
3. Issues Arising from the Interview Process 69
IV. PERCEPTION OF RISK 71
A. THREATS TO LIFE AND HEALTH 72
1. "AIDS is a Death Sentence" 72
2. "It Could Be Me" 74
3. The "Horror" of Dying of AIDS 76
4. The Stigma of AIDS 76
B. THREAT TO SIGNIFICANT OTHERS 78
C. THREAT TO PROFESSIONAL SELF-ESTEEM 79
D. UNCERTAINTY ABOUT AIDS 83
1. Who and What is Dangerous? 83
2. Can I Be Sure? 83
3. Can I Protect Myself? 84
E. FACTORS INFLUENCING UNCERTAINTY 85
1. The Novelty of the Situation 86
2. The Unpredictability of the Situation 88
F. SUMMARY 90
V. MAKING RISK MANAGEABLE: REDUCING RISK OF EXPOSURE 92
A. BECOMING INFORMED 92
B. MONITORING FOR POTENTIAL EXPOSURE 96
C. TAKING PRECAUTIONS 100

1. Being "Overcautious": Covering All Bases 101
2. "Being Careful" 104
3. Adapting Precautions 108
4. Factors Influencing Use of Precautions 113
D. REDUCING PATIENT CARE CONTACT 122
1. Requesting Not to Care 122
2. Legitimate Refusal 124
3. "Keeping My Distance" 125
4. Indirect Avoidance 127
5. Collective Avoidance 127
E. SUMMARY 128
VI. MAKING RISK MANAGEABLE: REDUCING FEAR OF EXPOSURE 130
A. REASSURING SELF OF MINIMAL RISK 130
1. Being Careful Protects 131
2. It Could Be Worse 134
3. Seeing is Believing 138
B. DENYING RISK 141
1. "It Will Never Happen to Me" 141
2. Not Talking About Exposures 143
C. REDUCING THE SALIENCY OF RISK 147
1. Not Thinking About All the Possibilities 147
2. "Putting It in the Back of Your Mind" 149
3. "Looking Past the Disease" 149
4. "Getting Away From It" 151
D. ACCEPTING RISK 152
E. DISCONFIRMATIONS IN THE CONSTRUCTION OF CONTROL 154
1. Situations Directly Related to Risk 155

2. Situations Not Directly Related to Risk 157
F. SUMMARY 158
VII. MAKING RISK MEANINGFUL: JUSTIFYING RISK 160
A. PERCEPTION OF PATIENT 160
1. "AIDS and Homosexuality - A Package" 160
2. Patient as "Other" 162
3. Patient as a Person 163
B. PERCEPTION OF WORK 172
1. "I Like My Work. I Enjoy What I Do." 172
2. "My Work Is Worthwhile" 175
C. DISCONFIRMATION OF "ACCEPTANCE" 182
D. PROFESSIONAL COMMITMENT 183
E. SUMMARY 187
VIII. COPING IN RELATION TO OTHERS 189
A. MAINTAINING PROFESSIONAL SELF-ESTEEM 189
1. "Acting As If" 190
2. Discovering Shared Feelings 193
3. Accepting Self 199
4. Changing Self 200
5. Distancing 201
6. Summary 202
B. MANAGING SIGNIFICANT OTHERS' RESPONSES 203
1. Reassuring Others Of Minimal Risk 204
2. Not Talking About It 207
3. Defending the Nurses' Work 209
4. Summary 212
C. MANAGING "NONSIGNIFICANT" OTHERS' RESPONSES 213

1. Reassuring Others of Minimal Risk 213
2. Selective Disclosure of Information 215
3. Convincing Others of the Value of Work 218
4. Summary 219

IX. MANAGING EXPOSURE 220

A. MANAGING HYPOTHETICAL EXPOSURE 221
1. Perception of Risk 221
2. Testing 222
3. Disclosing 224
4. Assigning Blame 225
5. "Forgetting About It" 226
6. Preventing the Consequences of Exposure: Drug Therapy 226

B. MANAGING "ACTUAL" EXPOSURE 227
1. Perception of Risk 229
2. Preventing Consequences of Exposure 231
3. Reducing Fear 231
4. Selective Disclosure to Coworkers 249
5. Disclosure to Family 253
6. Assigning Blame 255
7. Derogating the Patient: A Disconfirmation of "Meaning" 258
8. Construing Benefit 261

C. SUMMARY 262

X. SUMMARY AND CONCLUSIONS 264

A. SENSE OF CONTROL IN THE CONTEXT OF UNCERTAINTY 264
1. Maximizing Safety Through the Use of Precautions 269
2. Minimizing Risk Through Reappraisal 276
3. Protective Distancing 279

4. Sense of Control in the Occupational Risk Literature 280

B. APPRAISING RISK AS MEANINGFUL: RISK HAS A HUMAN FACE ... 283

1. Meaningfulness in the Context of Coping 284

2. Commitment to Patient: The Core of Meaningfulness 286

3. Attribution of Responsibility 288

4. Developing "Accepting" Relationships 292

5. Meaningfulness in the Occupational Risk Literature 299

6. Relationship Between "Meaningfulness" and "Manageability" of Risk 301

C. THE "PROFESSIONAL" NURSE: NURSES ARE "HUMAN" 304

D. EXPOSURES AS "VICTIMIZING" EVENTS 312

E. LIMITATIONS OF THE STUDY 316

1. Threats to Validity 316

2. Threats to Reliability 320

F. DIRECTIONS FOR FURTHER RESEARCH 321

G. HYPOTHESES 324

H. IMPLICATIONS FOR HEALTH CARE AGENCIES 326

REFERENCES 329

APPENDIX A: INTRODUCTORY INFORMATION 349

APPENDIX B: INTERVIEW SCHEDULE 352

APPENDIX C: CONSENT FORM 354

APPENDIX D: LETTERS OF ETHICAL CLEARANCE 355

I. INTRODUCTION

Acquired Immunodeficiency Syndrome (AIDS) is a devastating and incurable disease. Many view it as an epidemic unparalled in modern medicine and a leading public health problem. Such a disease presents many challenges to health care workers (HCWs), challenges that relate to the nature of the disease, the persons most often afflicted with it, and the patient care required. A particularly salient issue to HCWs is the concern about acquiring HIV (human immunodeficiency virus) infection and AIDS while providing patient care. Bosk and Frader (1990) suggest that "the most apparent phenomenon related to AIDS in the contemporary urban teaching hospital is...the perception of risk" (p. 265). Self-protection has become an unprecedented concern for health professionals (Nelkin et al., 1990). Moreover, occupational exposure to HIV, the etiologic agent for AIDS, is a concern for HCWs throughout the world (Strickler, 1988).

Fear of infection among HCWs is not new. Infectious diseases have always been a part of the human experience. Historically, the nursing profession evolved from the care of individuals with infectious diseases (Reisman, 1988). Florence Nightingale wrote specifically about the nurse's commitment to giving quality nursing care to those with infections and commented on the fear felt by both the public and care providers. Similarly, prominent early physicians such as Guy de Chauliac, Galen, and Sydenham reportedly feared caring for patients during deadly contagious plagues (Zuger & Miles, 1987).

Although AIDS shares characteristics with other past and current diseases, it may be unique in the combination of disease characteristics it exhibits. Each of these characteristics in and of itself may not be insurmountable, but in concert they may provide unique challenges (Taylor et al., 1989). AIDS is a contagious, infectious disease with an undefined incubation period. It is a universally fatal disease for which there is no vaccine or cure. Moreover, it is associated with "lifestyles" that are in themselves stigmatizing. Indeed, in comparing AIDS with other current diseases, AIDS is the only one to present with all of these features.

The occupational risk of acquiring HIV infection is estimated to be extremely small. The US Centers for Disease Control (CDC) in Atlanta have been recording all world-wide reports of occupational exposure. There have been fifteen such exposures since 1983 where seroconversion has been well-documented, and one of these workers has gone on to develop clinical AIDS (Strickler, 1988). The number of patient-HCW interactions and contacts with HIV-infected products has never been estimated and indeed is probably incalculable (Strickler, 1988). The relative risk of seroconversion after exposure has been estimated at 0.36% to 0.43% (Henderson, 1989; Stock et al., 1990). In a prospective study currently being conducted by the Federal Centre for AIDS (Canada), there have been no seroconversions (as of May 1990) for the 336 exposed HCWs who have enrolled in the study since it began in February 1985 (Elmslie et al., 1990).

In spite of the low probability of seroconversion, many HCWs perceive themselves to be at considerable risk. Much research has focused on HCWs' perceptions of risk in terms of the degree of concern or anxiety about becoming exposed to HIV. The factors most often addressed to account for perception of risk are: (a) knowledge of HIV infection and AIDS, (b) attitudes toward stigmatized groups at high-risk for acquiring HIV infection and AIDS (e.g., intravenous drug users and homosexual men), (c) experience caring for persons with AIDS (PWAs), and, to a lesser extent, (d) beliefs about the efficacy of measures to prevent exposure.

In contrast to the considerable research exploring risk perception, much less attention has been directed to examining how HCWs deal with their perceptions of risk of contagion. Coping responses have been addressed primarily as HCWs' attitudes toward the management of AIDS on a societal level in terms of policies such as screening, isolation, and the right to refuse care. On the other hand, there is little systematic empirical exploration of how HCWs cope with their feelings of risk in their day to day practice. Those few studies that examine the experience of HCWs caring for PWAs (Geis & Fuller, 1985; Lessor & Jurich, 1986) were conducted very early in the course of the AIDS "epidemic" and in somewhat unique circumstances. Lessor and Jurich's study was conducted on the first medical unit for AIDS in San Francisco; Geis and Fuller explored nurses' feelings in hospice settings admitting their first PWA. While these studies provide valuable insight into HCWs' experiences, many changes have occurred since these studies were carried out. There has been an increase in information about AIDS, an increase in the number of patients with the disease, and a variety of social, professional and political responses to the care and management of PWAs. Moreover, there are no studies about HCWs' coping responses to PWAs in the Canadian context.

The family's influence on the health care worker's perception of risk and coping has been little explored. While several studies (Pringle et al., 1988; Reed et al., 1984; Blumenfield et al., 1987) acknowledge the concern that the health care worker's family may have regarding the worker's risk of becoming exposed to HIV, along with the potential conflict that this may create, no study explores in depth how health care workers perceive and deal with the concerns of their families.

Ascertaining how HCWs perceive and cope with the risk of acquiring HIV infection and AIDS seems particularly significant for a number of reasons. First, their perceptions of risk and the coping strategies employed to deal with these perceptions may influence the quality of care provided to PWAs. As well, health care workers are often in a position to influence the public's interpretation of the disease because they are often responsible for disseminating health information through both formal and informal community education. Health professionals also may be instrumental in formulating health care policies in relation to AIDS management. Third, an understanding of HCWs' experiences in caring for PWAs may facilitate development of strategies to reduce job-related stress for health professionals. Given the rising prevalence of this disease (Van Servellen et al., 1988; Shulman & Mantell, 1988) growing numbers of HCWs will be caring for PWAs, both within and outside major urban centres. In Canada, the number of reported cases is currently doubling every 25 months (Federal Centre for AIDS, 1990). Moreover, earlier detection of the disease and the use of anti-virals and other agents that prolong life but do not cure AIDS may exacerbate the AIDS care problem. Patients will require continued health care, including long-term care provided outside acute-care hospitals. This means that HCWs in a variety of health care facilities will be in contact with PWAs. Finally, over and above its application to the AIDS situation, insights gained from staff experiences with PWAs may be applicable to other situations that evoke intense feelings among HCWs.

While the literature has addressed the concerns of a variety of health care workers, nurses appear to be a particularly vulnerable group. Nurses have the closest and most prolonged contact with PWAs and their families (O'Donnell et al., 1987; Fox et al., 1990). Because AIDS is a chronic life-threatening illness with no cure, it is essentially a "nursing disease" (Fahrner, 1988). Nursing care for PWAs involves both physical and psychosocial components; therefore, nurses' attitudes and fears about AIDS may significantly affect their ability to provide empathic, supportive care to PWAs and their families (Pringle et al., 1988; Simmons-Alling, 1984; Feinblum, 1986). Finally, in terms of accidental exposure to HIV, nurses are the occupational group most at-risk (Elmslie et al., 1988; Cooke, 1990). In the prospective studies currently being conducted by the Federal Centre for AIDS (Canada) to determine the risk to HCWs of acquiring HIV infection in the workplace, 71% of all parenteral (needlestick) and skin or mucous membrane exposure occurred among nurses. Laboratory technicians, the next highest at-risk group, sustained 11% of all reported exposures, with residents and physicians sustaining 5% and 4% respectively (Elmslie et al., 1988). Similar results were obtained by a Toronto General Hospital study, in which 60% of all exposures were procured by nurses, 13% by resident physicians, and less than 5% by laboratory technicians (Strickler, 1988).

A. STATEMENT OF THE PROBLEM

This study will examine how nurses cope with the threat of acquiring HIV infection and AIDS while performing patient care activities.

B. RESEARCH QUESTIONS

From the nurses' perspective, what is involved in the process of coping with the risk of acquiring HIV infection and AIDS? More specifically:

1. How do nurses perceive the risk of acquiring HIV infection and AIDS in their nursing

activities?

2. What factors influence the perception of risk?
3. What coping strategies are used to manage the perception of risk?
4. What resources and constraints influence coping efforts?
5. How is perception of risk and coping influenced by the nurse's family/significant others?
6. How does perception of risk and coping change for the individual nurse over time?

The next chapter will provide a review of the current literature addressing HCWs' responses to AIDS and present the theoretical perspective that informs the study.

II. LITERATURE REVIEW

The literature review in this chapter will be divided into two major sections. In the first section I will discuss research directly related to the substantive focus of the study, health care workers' responses to AIDS. The second section will provide the general theoretical orientation that informs the study.

A. HEALTH CARE WORKERS' RESPONSES TO AIDS

The literature describing the responses of health care workers (HCWs) to AIDS can be organized around four main areas: (a) HCWs' perceptions of risk of acquiring HIV infection and AIDS together with the factors that may influence their perceptions, (b) the coping strategies employed by HCWs to manage their perceptions of risk, (c) the influence of HCWs' families on the HCWs' appraisals of risk and coping, and (d) the potential conflict created by HCWs' perceptions of risk and professional responsibility.

1. Perception of Risk of Acquiring HIV Infection and AIDS

The majority of empirical studies that address HCWs' perceptions of risk are survey designs assessing the HCWs' appraisals of risk in terms of the degree of concern or anxiety about HIV and AIDS together with selected factors that may influence this concern. Although there appears to be a very low "actual" risk of HIV infection by HCWs who care for persons with AIDS (PWAs) or have contact with their body fluids (Allen & Curran, 1988; Elmslie et al., 1988; Henderson, 1989; Stock et al., 1990), the level of concern about contagion is considerable (Armstrong-Esther & Hewitt, 1990; Blumenfield et al., 1987; Brennan, 1988; Imperato et al., 1988; Kerr & Horrocks, 1990; Nielsen, 1988; O'Donnell et al., 1987; Paine & Briggs, 1988; Pringle et al., 1988; Reed et al., 1984; Searle, 1987; Smithson, 1988; Treiber et al., 1987; Van Servellen et al., 1988; Wallack, 1989; Wiley et al., 1990). The percentage of health care workers in these studies who reported being fearful ranged from a low of 25% (Van Servellen et al., 1988) to a high of 92% (Wiley et al., 1990). In spite of the time period that has elapsed since the earliest studies were reported, occupational exposure to HIV has remained a concern for HCWs in a variety of occupational settings. In Brennan's (1988) study, 73% of nurses who had cared for PWAs for an average of three years expressed concern about their own safety. In more recent studies, Kerr and Horrocks (1990) found that 61% of their sample were "greatly concerned" about caring for PWAs with 70% reporting that the existence of AIDS has made nursing a high-risk occupation, and 92% of nurses in Wiley et al.'s (1990) study indicated that they "worry" about being exposed to HIV at work. In a study of occupational therapists, Atchison et al. (1990) report that 36% of respondents were afraid that they would "contract AIDS" while caring for patients. Finally, Sarvela and Moore (1989) found that one-third of nursing home employees felt that being around someone with AIDS would put their health in danger, and 21% indicated that they would be afraid to take care of a family member with AIDS.

Although the measure of risk appraisal used in the above studies is not consistent across studies (e.g., "risk", "fear", "concern", "worry"), and the methodology of many studies suffers from serious flaws (e.g., low response rates, unrepresentative samples), nevertheless, these studies indicate that there is considerable concern about the risk of contagion and that there is also variability in the perception of risk. Most studies have attempted to account for this variability using a number of influencing variables, such as knowledge about the disease and its transmission, experience in caring for PWAs, attitudes toward those at "high-risk" for acquiring HIV infection and AIDS, beliefs about the efficacy of measures to prevent exposure, and selected demographic variables.

a. Knowledge. Many studies have investigated the influence of knowledge on perception of risk because it is generally assumed that the major defense against excessive anxiety is up-to-date knowledge of methods for safely caring for PWAs and accurate information about the transmission of the AIDS virus (Pringle et al., 1988). In fact, most of the studies to date assess the effect of this variable either directly, or indirectly by evaluating the effectiveness of educational programs. Pringle et al. (1988), in a large sample of over 2000 home care nurses from 46 agencies in Ontario, found that the level of concern of "contracting AIDS" was negatively correlated with the nurses' level of knowledge. The nurses who were most concerned about "contracting AIDS" had significantly lower knowledge scores (mean = 56.6%) than those who rated their concern as low (mean = 66.8%). This relationship is supported by other studies (Gordin et al., 1987; Krasnik et al., 1990; Turner et al., 1988; Valenti, 1986; Wertz et al., 1987; Young et al., 1989). O'Donnell and O'Donnell (1987) surveyed 153 hospital workers before and after inservice training programs regarding their perceptions of risk of "getting AIDS". Attendance at inservice programs was associated with reductions in perceived risk across all job categories except licensed practical nurses, who reported slight increases in risk. Amchin and Polan (1986), in a longitudinal account of psychiatric staff adaptation to PWAs, conclude that educational programs and experience in caring for PWAs accounted for the observed difference in patient care two years after the first patient with AIDS was admitted. This study, however, did not specifically assess knowledge level and perceived risk.

In contrast to those studies that suggest that increased knowledge decreases perception of risk, others (Atchison et al., 1990; Blumenfield et al., 1987; Imperato et al., 1988; Paine & Briggs, 1988) demonstrate little effect of knowledge on perceived risk. Imperato et al. (1988) surveyed 174 second-year medical students in 1987 in an area of high AIDS incidence to determine their perceptions of risk in regard to various types of patient contact, such as performing invasive procedures, drawing blood, performing physical examinations, and simply being in the same room as a PWA. Half of the class were surveyed prior to a lecture on the epidemiology of AIDS that set forth the risks associated with various types of contact; the other half were surveyed immediately after the lecture. Results indicated that there was no significant difference in perception of risk between the two groups of students. In a more recent study of Canadian nursing students, Armstrong-Esther and Hewitt (1990) found that fear of contagion did not decrease following an educational program. Paine and Briggs (1988), in a stratified random sample of Australian medical practitioners, reported that while 37% of doctors were concerned about "contracting AIDS" through their work, there was no significant difference between the mean knowledge scores of those who were concerned and those who were not. Blumenfield et al. (1987) reported mixed results regarding the effects of increased education on fear of contagion among nurses in an urban teaching hospital, although these study results are suspect based on low response rate, imprecise measures, and inadequate control.

As can be seen from the above studies, precise conclusions cannot be drawn regarding the effect of knowledge on perceived risk. The manner in which knowledge is operationalized differs across studies, thereby making comparisons difficult. Moreover, the analysis in many studies could be usefully extended to include the effects of confounding variables (e.g., practice specialty, experience with PWAs) and the effects of interaction and nonlinearity. For example, it may be the case that the effect of knowledge on perceived risk "plateaus" after a certain level of knowledge is obtained.

b. Experience caring for patients with AIDS. Studies that examine the influence on perceived risk of having cared for PWAs yield equivocal findings. Polan and Amchin (1987) found that those nurses who had experience with AIDS patients reported less anxiety than those who had not cared for PWAs; however, the difference between groups was not statistically significant, even though those who had cared for PWAs felt more secure about infection control procedures. This nonassociation between experience and anxiety was supported by Wallack's (1989) survey of house staff physicians and nurses in New York. Similarly, Sumser et al.'s (1990) study of nurse practitioners revealed that although experience with PWAs increased the nurses' level of perceived competence in caring for PWAs, this experience had no significant impact on perceived risk or comfort level.

In a sample of medical and pediatric interns and residents in New York, Link et al. (1988) found a greater concern about personal risk among those who had treated a greater number of patients and among those who were in medicine rather than in pediatrics. Furthermore, 36% of medical residents and 19% of pediatric residents believed that their AIDS experience made them less likely to want to care for AIDS patients in the future.

In contrast to the above studies that suggest that experience may increase concern or, at best, make little difference in perceptions of risk, other studies show that experience in caring for PWAs and fear of AIDS are negatively correlated. Pringle et al. (1988) found that those nurses who had cared for PWAs reported less concern about "contracting AIDS" than those who had not cared for PWAs. They caution, however, that while the difference was statistically significant, the absolute mean difference between groups was very small, thereby suggesting that statistical significance may be attributable to the large sample size rather than to notable differences. O'Donnell et al. (1987), in a study of 237 employees at a major AIDS patient-care facility in Massachusetts, found that more contact with AIDS patients was associated with lower reported stress for all job categories (registered nurses, house officers, licensed practical nurses, and social workers/clergy) except technicians. Technicians, who had on average seen the greatest number of PWAs, reportedly felt at greatest risk for "getting AIDS". On the other hand, nurses and aides, while seeing fewer patients than the technicians, reported spending the most time with patients and had the highest number of interactions with patients' families and friends. These authors conclude that the *nature* of the staff-patient interaction may influence the relationship between direct patient contact and the level of HCWs' stress. That is, employees who have more opportunity to engage in *social* interactions with patients may experience reductions in stress, whereas high frequency of contact, coupled with brief and impersonal interactions (as was the case with technicians), may lead to greater concern about personal risk. This may imply that close contact with PWAs and their families allows workers to come to terms with their fears. That continued contact may be necessary to decrease fear is also suggested by Krasnik et al.'s (1990) study of Danish health care workers. In this study, six or more contacts with HIV-infected persons resulted in more positive attitudes towards HIV-infected patients (which influenced level of anxiety), while fewer that six contacts did not. Finally, Kerr and Horrocks (1990), in a recent study of Nova Scotia nurses, found that those nurses who had not cared for PWAs scored higher on the "AIDS-phobia" scale developed by O'Donnell et al. (1987) than did nurses who had cared for PWAs.

Clearly, the studies reviewed yield inconsistent findings regarding the influence that experience caring for PWAs exerts on health care workers. Very few studies, however, explore this experience in enough depth to gain an understanding of what it is about caring for patients that influences risk perception. An exception is the qualitative case study conducted by Lessor and Jurich (1986) on the first medical unit established for PWAs in San Francisco. Using Roth's (1957) work on the social organization of contagion control and Strauss et al.'s (1982) findings on "sentimental" work, these authors suggest that effective caring for PWAs requires "sentimental work" and close interpersonal relations. Because such work is incompatible with a concern about contamination and contagion, the result is a "seeming disregard for contagion risk" (p. 252). While informants admitted that they at times think about risks and even become fearful, their work for the most part is rewarding enough to override their concerns. This study, however, may be atypical, as all personnel on this unit had a personal or professional interest in caring for PWAs and had volunteered to work on the unit to meet these commitments. This may not be so in many situations where HCWs care for PWAs. Nevertheless, this study points out the advantage of a qualitative approach in providing an understanding of the experiences of HCWs.

c. Attitudes toward "high-risk groups". A considerable literature has addressed the attitudes of health care workers toward those "groups" most "at risk" for acquiring HIV infection and AIDS (e.g., intravenous drug users and homosexual men). Negative attitudes toward those with AIDS are assumed to influence the care provided (Pringle et al., 1988). As well, it has been suggested that such attitudes may interfere with learning about AIDS, which is considered by some to be a major defense against anxiety (Amchin & Polan, 1986; Kelly et al., 1987). Several studies have explored the effect of attitudes toward "high-risk groups" on risk perception. Pringle et al. (1988) demonstrated that nurses' concerns about risk of contagion were positively correlated with discomfort with homosexuality. That is, the greater the concern about contagion, the greater the discomfort with homosexuals. Similarly, O'Donnell et al. (1987) found that among a variety of hospital workers, "AIDS-phobia" (including fear of contagion) was positively correlated with homophobia. While acknowledging that causality cannot be imputed, these authors suggest that fear of contagion is probably heightened by negative attitudes toward homosexuality. Kerr and Horrocks (1990), using O'Donnell et al.'s (1987) scale of "AIDS-phobia" in a random sample of Nova Scotian nurses, verified O'Donnell et al.'s findings of a positive correlation between homophobia and fear of contagion. Krasnik et al. (1990) also found that more negative attitudes toward homosexual men were associated with greater anxiety about risk of HIV infection.

In contrast to those researchers who assert that homophobia may accentuate fear of contagion, others suggest that fear of contagion may increase negative feelings toward those "groups" initially identified with AIDS. In a study of New York physicians and nurses who had cared for male, homosexual PWAs, Douglas et al. (1985) found that 30% of nurses and 32% of physicians felt more negative toward homosexuals since the onset of AIDS. These authors imply that while increased contact with PWAs may dispel false stereotypes and lessen homophobia, frequent contact with PWAs may also heighten anxiety if these stereotypes serve important defense functions. Moreover, because fear of contagion may be accompanied by feelings of helplessness, prejudice can displace blame and frustration, and justify detachment from PWAs. That fear of contagion may increase feelings of homophobia is further suggested by Richardson et. al (1987) in a survey of Los Angeles physicians. In this study, 32% of physicians reported that they were more fearful of homosexuals because of AIDS, while 41% felt less accepting of gay lifestyles because of AIDS. Similar results were reported by Kerr and Horrocks (1990), who found that 34% of nurses "agreed" that the increase in AIDS cases has intensified their negative attitudes toward homosexuals. Scherer and Haughey (1987), cited in Pringle et al. (1988), also found that nurses' attitudes toward homosexuals have become more negative since the AIDS crisis began. Finally, in O'Donnell et al.'s (1987) study referred to above, while 73% of hospital workers reported that AIDS made them think more about "lifestyle", the percentage of workers who had become more tolerant of homosexuality (17%) was roughly equal to the 19% who reported that AIDS has made them less tolerant of homosexuals.

Mejta et al. (1988), in a study of substance abuse counsellors in Chicago, attempted to assess how counsellors' fears of contagion influenced their level of discomfort with clients at high risk for AIDS. Counsellors' comfort levels were influenced most strongly by the HIV status of the clients rather than by the clients' sexual orientation or their use of drugs. When counsellors were asked directly the extent to which discomfort in working with clients was due to fear of exposure to AIDS, to lack of knowledge about AIDS, or to knowledge about the client group, counsellors stated that all three factors influenced their comfort level, with fear of exposure to AIDS and lack of knowledge about AIDS assuming greater importance than knowledge about the client group.

In a similar but more extensive study, Kelly et al. (1988) sought to determine whether stigma is based primarily on the disease (therefore indirectly measuring fear of contagion) or on the sexual preference of the patient. A random sample of 500 nurses was asked to respond to one of four vignettes describing a patient. The vignettes were identical except that the patient's illness was identified as either AIDS or leukemia, and the patient's sexual preference as either heterosexual or homosexual. Thus, each subject read a single vignette that described either a homosexual or heterosexual male diagnosed with either AIDS or leukemia. Results indicated that nurses evaluated the AIDS patient much more harshly than the leukemia patient in that they considered the AIDS patient to be more responsible for his illness, more deserving of his plight, and less deserving of sympathy and understanding even though he was perceived as experiencing more pain that the leukemia patient. Multivariate analysis revealed significant main effect attitude differences for disease and for sexual preference, and interaction effects of disease and sexual preference. That is, regardless of whether they had AIDS or leukemia, homosexual patients were evaluated more harshly than heterosexual patients; and regardless of whether they were homosexual or heterosexual, AIDS patients were evaluated more harshly than identically described leukemia patients. Interaction effects indicated that homosexual persons with AIDS were viewed as most deserving of their illness. Furthermore, nurses reported less willingness to interact with homosexual patients than with heterosexual patients, regardless of illness. Nurses also reported less willingness to interact with AIDS patients than with leukemia patients, even though AIDS patients were perceived as being more truthful, more open minded, more socially skilled and warmer than leukemia patients. The above study, when replicated with a sample of physicians (Kelly et al., 1987), demonstrated significant main effect differences for disease but no main effect differences for sexual preference nor interaction effects of sexual preference and disease. This suggests that for physicians, unlike nurses, homosexuality itself was not a strong contributor to AIDS stigmatization. That is, physicians may react negatively simply to the AIDS diagnosis.

In summary, these studies indicate that while it is often assumed that homophobia may increase fears of contagion and decrease the comfort level of HCWs, it may also be the case that fear of contagion may result in more negative feelings toward homosexuals. The direction of influence may, in all likelihood, be reciprocal and the result of a complex array of factors not yet identified or explored.

d. Perceived efficacy of measures to prevent exposure. The degree of perceived control over the outcome of an encounter is thought to affect risk perception (Lazarus & Folkman, 1984; Fischhoff et al., 1978). For those caring for PWAs, perceived control may be influenced by the HCWs' perceptions of the efficacy of recommended precautions to protect them from exposure to HIV. The literature suggests that there is a some degree of uncertainty about the efficacy of recommended measures to prevent exposure. Pringle et al. (1988) found that 48% of the home care nurses surveyed were "very concerned" with a further 50% "slightly or fairly concerned" that "not enough is known about AIDS to know what precautions should be taken by HCWs to protect themselves against the disease". Blumenfield et al.'s (1987) study revealed that 50% of nurses felt that "AIDS could be transmitted" despite adhering to recommended precautions, while 20% of respondents in O'Donnell et al.'s study (1987) expressed this concern. Wallack (1989) found that almost equal percentages of nurses (63%) and house staff physicians (65%) felt that they were at risk even if they followed the hospital's infection control guidelines. Consistent with these findings, Brennan (1988) reported that 63% of nurses perceived that precautionary policies are sufficient to protect them from HIV exposure, while 27% did not. Moreover, other studies (Wallack, 1989; Searle, 1987; Wertz et al., 1987) suggest that the disparity between expert and clinician opinions about AIDS management results from distrust of expert advice. Simmons-Alling (1984) further asserts that staff members often perceive that they are not being given "all the facts". Finally, for nursing students, uncertainty appears to relate not only to the medical uncertainty about the disease but also to the students' decreased confidence in their own skill level to avert exposure (Bremner & Brown, 1986).

e. Demographic variables. Studies demonstrating the influence of demographic variables on the perception of risk yield inconsistent findings. Pringle et al. (1988) considered the effect of employment status, having children, and the nurse's age on the nurse's knowledge, attitudes, and concerns. A lower degree of concern about "contracting AIDS" was reported by those who worked full-time, who did not have children, and who were older. Although these variables generated significant differences on the concern of personal risk, the observed mean differences were very small suggesting that significance may be a statistical artifact. Reed et al. (1984) found no significant association between age and fear of contagion. Similarly, Kerr and Horrocks (1990) found that while nurses with children were more "AIDS-phobic" and more "homophobic" than those without children, there was no difference in attitude toward those with AIDS using the variables age, years of nursing experience, marital status, experience with some communicable diseases, or working in different nursing specialties. On the other hand, Paine and Briggs (1988), in a sample of Australian physicians, found that younger doctors (under 40 years of age) were more concerned about risk of contagion. Moreover, male physicians reported more concern than their female counterparts. These results, however, may reflect gender and age differences among medical specialties, which vary in the risk of exposure to blood and body fluids. However, Fisher et al. (1988) also found that male medical students were twice as likely as female students to be unwilling to treat AIDS patients. In support of Paine and Briggs' (1988) study, a recent random sample of a variety of Danish HCWs revealed that age was negatively correlated with anxiety. Gender, however, had little effect on perceived anxiety (Krasnik et al., 1990). Finally, in a study exploring the effect of minority status on perceived anxiety, Wallack (1989) found a higher level of risk perception among Blacks, Hispanics, and Asian clinical workers (house staff physicians and nurses) in a major New York teaching hospital. Racial or cultural background appeared to be associated with mistrust of national experts' reassurances of HCWs' safety. In sum, those studies that examine the effects of demographic variables on perceived risk clearly yield inconsistent results. What is not available from the reported studies, however, is an understanding of the "stakes" involved for different demographic variables.

2. Coping Strategies

While there is a considerable literature addressing risk appraisal, much less attention has been directed to examining how HCWs deal with the feelings this appraisal engenders. Coping responses seem to be addressed primarily as attitudes toward management of PWAs on a societal basis in terms of policies such as screening, isolation, and the right to refuse care. On the other hand, there is very little systematic empirical exploration of how HCWs manage risk in the course of actual day to day practice. Two qualitative studies are the major exceptions and will be discussed briefly.

Geis and Fuller (1985) assessed the impact of the first AIDS patient in four different hospice units using a research methodology that involved participant observation and in-depth interviews with a variety of caretakers (including physicians, nurses, home health aides) who had worked directly with the patient, in each case, a young homosexual male. Interviews, using a structured open-ended interview schedule, were conducted over a six-week period in 1984. All staff members were asked to participate and thirteen informants were interviewed. The researchers reported that three issues had the most impact on staff: fear of contagion, unresolved feelings about sex and sexual preference, and embarrassment about their own "irrational" responses to PWAs, brought about by fear. Moreover, acknowledgement of fear of contagion and death generated feelings incompatible with HCWs' previous images of themselves as professionals and "loving caregivers". Three main strategies for coping with fear were identified: repression of fear, appeal to rational data, and seeking emotional support from colleagues and friends. Each respondent used a combination of coping techniques, relying on different ones during the course of the patient's illness. Caregivers repressed their own fears and refrained from expressing them to others primarily because of their perceived lack of support from superiors and coworkers. While "irrational" behaviors were attempts to diminish anxiety, these behaviors led to further stress by creating feelings of embarrassment. Examples of irrational responses reported by HCWs included washing their clothes after visiting a patient and refusing to eat food offered by patients' families. The embarrassment such responses generated is reflected in such statements as, "I knew it wasn't rational, but I couldn't help it...I've never told anyone about that" (p. 27). Although one of the coping strategies employed by some HCWs was seeking support from outside friends, other HCWs perceived their usual network of family and friends as less supportive. In fact, Geis and Fuller (1986) reported evidence of conflict between HCWs' professional values and their personal or family values. While professional values dictated that HCWs were obligated to care for all patients regardless of circumstances, at the same time, family and personal values required that a HCW, who may also be a spouse or a parent, has an obligation to protect himself or herself from health risks. In short, the perceived risk is to the HCW's health and life and to the health and life of the HCW's family.

Lessor and Jurich (1986) also used a field study method to discern the social aspects of managing the risk of contagion. Their study was conducted on the first medical AIDS unit at the San Francisco General Hospital. Data were obtained by participant observation and in-depth interviews with a variety of HCWs. All HCWs on the unit had volunteered to work there and were highly committed for either professional or personal reasons or both. This commitment may have influenced the major coping strategy that emerged from the data analysis, a seeming disregard for contagion risk. Lessor and Jurich suggest that because the major work of caring for PWAs is "sentimental" (Strauss et al., 1982), involving close interpersonal relationships, and because fearing contagion may prevent social closeness, participants tend to "drop barriers to get the work done". HCWs also developed an "ideology", a belief system by which to explain to themselves and others the importance of their work. When fears of contagion became immediate and concrete (e.g., when sustaining a needle puncture), HCWs used a variety of coping strategies: "made it bleed", "prayed", "had faith", and relied on the knowledge that other HCWs must have been exposed previously. To convince others of their minimal risk, HCWs compared the low evidence of AIDS among HCWs to the high prevalence among high-risk groups, thereby minimizing their own risk. This study suggests that perception of risk may be influenced by the degree of professional commitment brought to the caregiving situation, and that once involved in AIDS care, the benefits accruing from the involvement mitigate the risks. The role of professional commitment in risk perception and management requires further exploration.

The above studies are a beginning effort to identify how HCWs cope with risk. Since these studies were conducted, however, many changes have occurred. There has been a burgeoning of information regarding the epidemiology and medical treatment of AIDS, a substantial increase in the number of people afflicted with AIDS, and a variety of social, professional, and political responses to the care and management of PWAs. How this changed situation has influenced risk perception and coping needs to be further researched.

In addition to the above studies, other researchers have acknowledged what could be considered coping strategies but have not explored these strategies in any depth. Avoidance (or denial), and increased involvement are two strategies cited by several authors (Simmons-Alling, 1984; Steinbrook et al., 1985; Amchin & Polan, 1986) and implied in many more media and anecdotal accounts. These authors suggest that HCWs' initial distancing from patients may eventually lead to an increased involvement with PWAs to prevent HCWs from being labelled as "discriminatory". Such involvement may also reflect HCWs' efforts to compensate for their fears. Avoidance in the form of refusing to care for patients has also been seen as a viable coping strategy for some. Van Servellen et al. (1988) found that 23% of nurses would "absolutely not" accept a job caring for PWAs and a further 10% would do so very reluctantly. Other studies reveal that some nurses would request transfers if they were required to care for PWAs on a regular basis (Blumenfield et al., 1987; Kerr & Horrocks, 1990). A sizeable minority of nursing home personnel (24%) indicated that they would quit their jobs before they would work with someone with AIDS (Sarvela & Moore, 1989). In Wiley et al.'s (1990) study, 30% of nurses reported that they had considered changing their profession because of the AIDS risk. Finally, a survey of nursing students at Loyola University revealed that 36% of students, if given the choice, would "definitely" or "probably" refuse to care for PWAs (Wiley at al., 1988).

Gerbert et al. (1989) caution that hypothetical questions on surveys regarding HCWs' intentions of refusing to care for PWAs may evoke a different response than actual encounters between patients and HCWs. They found, for example, that dentists refused to care for HIV-infected patients far less often than surveys have indicated. Nonetheless, feelings about *wanting* to refuse may influence the kind of care provided. Although few studies report whether nurses have ever refused to care for PWAs, Brennan's (1988) study revealed that only 7% of nurses had ever refused to care for PWAs. These findings are consistent with Reed et al.'s (1984) earlier study in which only 8% of nurses reported that they had refused to care for PWAs. In this study, those nurses who had refused to care for patients with AIDS were more anxious about contagion than were those nurses who had not refused to care for PWAs. In sum, while there undoubtedly are reasons other than risk of contagion for refusing to care for PWAs, the research suggests that refusal to care may be based, in part, on fear (Bremner & Brown, 1986; Imperato et al., 1988; Richardson et al., 1987). What is lacking in the literature, however, is an examination of what refusal to care means to a professional health care worker.

The use of recommended precautions to decrease exposure to HIV would appear to be an obvious coping strategy. As previously noted, however, there is some concern regarding the efficacy of precautions to protect against exposure. Although this usually implies that perhaps official practices are not cautious "enough", some studies indicate that even these recommended precautions are not being followed. Nielsen (1988) suggests that this "noncompliance" may result from a disparity between knowledge about AIDS and the application of this knowledge in infection control practices. In her study of nurses in a small, community-based surgical and maternity hospital, 62% of respondents reported that they had frequent skin contact with blood; however, only 26% stated that they always wore gloves when skin contact with blood was anticipated. That factors other than inadequate knowledge may be responsible for this "noncompliance" is suggested by the finding that only 17% of respondents felt that it was possible to wear gloves each time blood contact was anticipated, with a further 49% stating that this was possible 25-50% of the time. While Nielsen's study was not confined to HCWs caring for PWAs, a study at San Francisco General Hospital ("AIDS Precautions," 1988) revealed that 56% of HCWs caring for PWAs were using "inadequate" precautions and that only 14% were using precautions that surpassed the CDC (Centers for Disease Control) guidelines. Furthermore, over one-third of this sample had sustained accidental exposure to blood or body fluids from patients with AIDS. A study of Canadian HCWs exposed to HIV-infected blood or body fluids also revealed that 41% of these employees wore no protective apparel at the time of their exposure. It was estimated that 34% of the exposures could most likely have been prevented by adherence to recommended precautions (Elmslie et al., 1988). The meaning of this "noncompliance" from the perspective of HCWs has not been explored sufficiently to suggest with any certainty the effect that factors such as perceived efficacy and practical constraints may have on the use of recommended precautions.

3. Family Influence in Risk Appraisal and Coping

The family's influence on the health care worker's perception of risk and coping has been little explored. None of the literature reviewed addresses the family as a source of support in coping with the threat of AIDS, whereas several authors acknowledge HCWs' perceptions of their families' concerns about contagion. In fact, the extreme level of anxiety expressed by some male partners of home care nurses was the impetus for the seminal VON (Victorian Order of Nurses) study of nurses and their partners (Pringle et al., 1988). This study identified that 48% of nurses were concerned about the risk they create for members of their families by caring for PWAs. This extent of concern is comparable to the 49% of nurses who expressed this concern in Scherer & Haughey's (1987) study, cited in Pringle et al. (1988). Furthermore, Pringle's survey of nurses' significant male partners revealed that 59% of partners were concerned that nurses caring for PWAs may create a risk to their partners or other family members. This finding suggests that nurses' concerns that they may pose a risk to their families are shared by their partners. Although no other researchers have interviewed HCWs' partners for their perceptions of risk, other studies show that nurses *perceive* that their families are concerned about their caring for PWAs. Reed et al. (1984) reported that 48% of nurses thought that their family members were anxious about nurses working with PWAs. Two-thirds of nurses in Blumenfield et al.'s (1987) study indicated that their families or friends had expressed concerns about associating with HCWs who care for PWAs. In a recent study of nurses who have cared for PWAs, 80% of respondents said that their relatives were concerned for the nurse's safety, while 32% of nurses perceived that their relatives were concerned for their *own* (i.e., relatives') safety (Brennan, 1988). This suggests that family members themselves feel vulnerable. In a random sample of general duty nurses in Nova Scotia, 40% of nurses perceived their spouses as being "negative" to their working with PWAs, while 32% perceived "other family members" as being "negative" (Kerr & Horrocks, 1990). Others (Feinblum, 1986; Simmons-Alling, 1984) further suggest that nurses are worried about how their jobs may affect their relationships with significant others. Blumenfield et al. (1987) found that some nurses began to deny to others outside the hospital that they cared for PWAs.

Concerns about and from families are also evident among physicians. Treiber et al. (1987) have reported increased worries about the "spread of the AIDS virus to family and friends" among a small sample of physicians and nurses, and 84% of Link et al.'s (1988) sample of house physicians felt that administration should formally address the concerns of spouses of house physicians. While both HCWs and their families may express concern about the risks that HCWs caring for PWAs pose for their families, there is also some evidence of conflict resulting from discrepant views of job-related risk of contagion held by nurses and their families (Pringle et al., 1988; Geis & Fuller, 1986; Simmons-Alling, 1984).

In sum, the research that has been done on the family's influence on the health care worker's risk perception and management implies that, in appraising the risk of contagion, nurses may need to consider not only what is at stake for their own health but also may need to acknowledge the concerns of their families. This, in turn, may conflict with the health care worker's image of a professional caretaker. The conflicting demands imposed by "risk" to self (and family) and "responsibility" to the patient may influence coping efforts because coping may be constrained by both professional and family commitments.

4. Risk and Responsibility

The interplay between professional responsibility and personal/family risks has not been explored in any depth, although as previously indicated, several studies acknowledge the potential for conflict between these two dimensions. Geis and Fuller (1986) suggest that, in their small sample, family and personal values took priority over professional values. In contrast, Lessor and Jurich (1986) imply that professional values and commitments can override concerns about personal risk. Mejta et al. (1988), in a study of counsellors working with substance abusers in a Chicago clinic, found that caring for PWAs evoked feelings of both risk and responsibility. A "desire to help" was elicited by 72% of the respondents and was the most frequently reported response. However, 55% of counsellors also reported "fear of the unknown". Moreover, 26% experienced "conflict", and 21% "confusion". Unfortunately, these feelings were not described or elaborated upon. The authors conclude that counsellors generally articulated values and attitudes congruent with professional ethics in that they would not refuse to treat patients. While not perceived as adversaries, counsellors also were not perceived as advocates for PWAs, because they did not go out of their way to care for PWAs. These researchers call for more research that attempts to understand the underlying emotional reactions that HCWs experience when caring for PWAs. Finally, Richardson et al. (1987), in a study of Los Angeles physicians, found that the major incentive for treating PWAs was a feeling of responsibility to care for and help others. While risk of contagion was not a major factor in the decision to care for PWAs for 40% of those surveyed, for those who believe it to be a factor, risk of contagion was the most frequent reason for *not* treating patients. Whether the decision to treat or not to treat presented conflicts was not reported.

That nurses are concerned to fulfill their professional responsibility as empathic caretakers while facing the risk of contagion is alluded to in the Pringle et al. (1988) study. Although, overall, nurses were more concerned with risk of contagion than with their ability to provide empathic care, over half of the nurses were at least "somewhat concerned" about their ability to empathize with PWAs, thereby suggesting some concern about fulfilling their professional expectations. This study, however, did not explore from the nurses' perspective how the risk of contagion may interfere with the ability to be empathic. Others (Rubinow, 1984; M. L. Brown, 1987) suggest that nurses who care for PWAs may experience value conflicts that may lead to frustration and anxiety that eventually may affect colleague relationships and patient care.

The right to refuse to treat or care for PWAs is addressed in the literature as an ethical issue and has generated considerable debate, especially among physicians. Although few researchers have asked respondents whether they have the option to refuse to care, several studies have ascertained whether respondents believe that they *should* have this choice. Pringle et al.'s (1988) finding that 55% of all home care nurses sampled felt that they should have the option of caring for PWAs generated considerable media attention. Their finding is supported by several other studies. Van Servellen et al. (1988) found that 53% of a sample of California nurses felt that nurses should have the option to refuse to care for PWAs, while O'Donnell et al. (1987) reported that 42% of a variety of HCWs agreed that workers should be given this option. In a more recent study of Nova Scotian nurses, Kerr and Horrocks (1990) found that 27% of nurses believed that they should have a right to refuse to care for PWAs. Another recent study, however, found that two-thirds of nurses surveyed believed that they should be allowed to refuse assignments to HIV-positive patients (Wiley et al., 1990). Of interest in this latter study is the finding that 75% of nurses who reported that they had been "exposed" to HIV-infected blood or body fluid felt that they should be able to refuse to care for patients, in contrast to 59% of nurses who had not been "exposed". Brennan's (1988) study of nurses who had cared for PWAs revealed that 50% of nurses felt that they did not have the right to refuse to care for PWAs. Moreover, "many" of the 47% who felt that they did have the right to refuse stated that being pregnant was the only acceptable excuse for declining to care for PWAs. Wertz et al. (1987) reported that only 16% of a sample of HCWs felt that they should be given the choice of caring for PWAs. Finally, Sarvela and Moore (1989) found that 51% of a variety of employees in a rural Illinois nursing home either "strongly agreed" or "agreed" that HCWs should be able to refuse to work with PWAs. Moreover, 40% of respondents reported that institutions such as hospitals and nursing homes should be able to refuse to *admit* PWAs.

Unfortunately, few studies attempt to relate perception of risk to beliefs about right to refuse care. An exception is Imperato et al.'s (1988) study of second-year medical students. These researchers found that those students with a higher perception of risk were more likely to report that medical students should have the prerogative to decline a variety of patient care activities. This association held for all care activities except participation in surgical procedures, where the majority of students (66%), regardless of degree of perception of risk held, reported that they should have the prerogative to decline participation. Another study (Bremner & Brown, 1986) investigated student nurses' reasons for thinking they have the right to refuse to care for PWAs. Fear of HIV infection and AIDS because of uncertainty about their own skills and the uncertainty about the disease itself as well as cultural and personal values were the major reasons given. Although the views of HCWs in relation to refusal to care have generated considerable disquietude among professionals and the public, the meaning of this option from the perspective of the HCWs has not been explored.

The relationship between risk and responsibility has become the crux of many debates on the ethical implications of refusing to care for PWAs. The conflictual nature of this relationship is addressed in an essay by Loewy (1986), entitled ***Duties, Fears, and Physicians***, in which he asserts that if fear of contagion interacts with negative aesthetic or moral considerations, then fear may indeed oppose duty. If, however, one's concept of professionalism demands a willingness to risk, then nonfulfillment of "professional" duties also may lead to a perceived fear of censure, of losing prestige, or of diminishing one's self-esteem. The conflict now becomes one of "fear of acting" versus "fear of shirking one's duty." In another essay addressing the ethical implications of physicians' refusal to treat, Arras (1988) maintains that when considering whether physicians have a "duty" to treat, risk of contagion must be considered in terms of both the scientific estimates of actual risk and the more "subjective" evaluation of that estimate. He argues that an evaluation of the "reasonableness" or "acceptability" of risk is culturally defined (hence, historically specific) and dependent on both public and professional sanctions. Zuger and Miles (1987), in an historical review of medical responses to historic plagues, suggest that, in most cases, physician behavior to treat contagious patients in spite of risk to themselves was impelled by individual private beliefs (often religious) rather than by professional ethics. Finally, in her summary of the ethical implications of AIDS for nurses, M. L. Brown (1987) predicts that the decisions that need to be made regarding care of AIDS patients and the risk to HCWs will force nurses to "review their commitment to nursing and their individual values and beliefs" (p. 69). In sum, these essays point out the need to explore with health care professionals what is involved in deciding to care or not to care for patients. What is at stake may include not only their own health and that of their families but also their personal and professional self-esteem.

This section has reviewed the literature relating to HCWs' responses to AIDS in four major areas: perception of risk, coping strategies, family influence on risk perception and coping, and the potential conflict created by perceptions of risk and responsibility. I now turn to a more general discussion of the theoretical orientation that informs this study.

B. GENERAL THEORETICAL ORIENTATION

The stress and coping literature provides a theoretical perspective for this study. According to Glaser (1978), an important purpose of the literature review in the context of qualitative research is to gain "conceptual entry" into the subject matter by providing "orientating" constructs. The following section of the literature review is organized around the stress and coping paradigm. Initially, I discuss the stress and coping framework in a general way. Following this general orientation, I then focus on more specific concepts that are germane to the study--risk appraisal, social support and work stress, and the family-work interface. These specific areas emphasize the significance of the social context for individual coping.

1. Stress and Coping Paradigm

In exploring how nurses respond to the threat of AIDS, the stress and coping literature will be used to provide an overall theoretical context for the study. In this section, I will outline briefly the major models that currently guide empirical research in the area of stress and coping. In this discussion, I will critique the various frameworks, particularly in terms of their relevance for the present study.

The literature on stress and coping can be seen as combining three major conceptual domains: sources of stress, mediators of stress, and manifestations of stress, each of which has been studied extensively. Currently, the major models incorporate these three domains, although they differ as to which element is emphasized and how it is elaborated.

Early studies on stress focused primarily on sources of stress and their manifestations. For example, the early "life events" research in the tradition of Holmes and Rahe (1967) assumes that all significant changes in the individual's life experiences call for readjustment to establish equilibrium, a process that can be wearing and exhausting, making the individual vulnerable to stress and its physical and psychological consequences. This research, rooted in the studies of Selye (1956), maintains that stress is the result of a struggle to reestablish homeostasis. Holmes and Rahe (1967) further suggest that it is the accumulation of events that build up to a stressful impact. The life-events approach has been criticized on both conceptual and methodological grounds by numerous authors (e.g. Cockerham, 1986; Lazarus & Folkman, 1984; Pearlin et al. 1981), and newer elaborations are attempting to incorporate these criticisms (Dohrenwend & Dohrenwend, 1981). A thorough critique of this approach is beyond the scope of this discussion. In terms of the present study, however, a few criticisms are particularly germane. One of the major shortcomings of the life events approach is that it does not incorporate a perceptual link, thus ignoring the qualitative meaning of the event to the individual experiencing it. Moreover, it does not account for the influence of intervening variables such as social support and coping responses that may mediate the stress relationship. Finally, it does not consider the "stressful" event in the context of other aspects of the individual's life.

Pearlin and his colleagues (1981) have expanded the life events model by identifying the mechanism that explains the relationship between events (the sources of stress) and outcomes (manifestations of stress). Their main contention is that role strains link events to stress. Discrete life events do not necessarily affect people directly but may exert their influence through a wider context of life strains, that is, through "those enduring problems that have the potential of arousing threat" (Pearlin & Schooler, 1978, p. 3). Although there are an infinite number of experiences arising within the multiple roles people play which may lead to stress, Pearlin and Schooler (1978) focus primarily on the persistent life strains that people encounter in four role areas: occupational, parental, marital, and household economics.

Two major sources of stress--eventful experiences and chronic strains--may converge in the production of stress. This may happen through two processes: life events can adversely alter the meaning of persistent life strains (Brown & Harris, 1978), or life events may create new strains or intensify preexisting strain (Pearlin & Schooler, 1978). Pearlin et al. (1981) further suggest that stress may occur particularly if these strains diminish the self-concept. Moreover, discrete events arising in one area (e.g., job disruption) may produce increased role strain in several areas (e.g., marriage, parenthood, work life, and economic problems of households).

For Pearlin, what determines the eventual outcome of eventful experiences are "mediators", conceptualized as coping responses and social support. These mediators conceivably can intervene at several junctures: prior to the event, between the life event and strain, between strain and diminishment of the self-concept, or prior to the stress outcome (Pearlin et al., 1981). Although coping and social support are perceived as conceptually distinct, they both have a similar function, that of regulating the effect of potentially stressful conditions. Both coping and social support are used to avoid, eliminate, or reduce "distress". While not ignoring the effect of social support, Pearlin's work emphasizes coping, which he defines as "any response to external life-strains that serves to prevent, avoid, or control emotional distress...the behaviors, cognitions, and perceptions in which people engage when actually contending with their life problems" (Pearlin & Schooler, 1978, p. 3, 4).

Pearlin et al. (1981) categorize coping strategies into three major types, distinguished by the nature of their function: (a) responses that modify the situation out of which stressful experiences arise; (b) responses that modify the meaning of problems in a manner that reduces the threat; and (c) responses that manage stress symptoms, that is, responses that allow individuals to accommodate to stress without being overwhelmed by it. Further, coping is situation-specific, in that coping responses are seen not as a set of general predispositions that are aroused regardless of the nature of the problem faced (Kobasa et al., 1981; Antonovsky, 1987), but instead are "specific behaviors that vary with the substance of people's problems and with the social roles in which the problems emerge" (Pearlin et al., 1981, p. 341). Finally, Pearlin's major emphasis is on reducing emotional distress. This is exemplified in his criteria for judging the efficacy of coping, "how well it prevents hardships from resulting in emotional stress...the extent to which a coping response attenuates the relationship between the life-strains people experience and the emotional stress they feel" (Pearlin & Schooler, 1978, p. 8).

The transactional model of Lazarus and his colleagues (Lazarus & Folkman, 1984; Folkman et al., 1986) is in many ways an elaboration of Pearlin's analysis, with a greater emphasis on cognitive appraisal. The model posits a reciprocal relationship between the person and the environment, each affecting and in turn being affected by the other (Lazarus & Folkman, 1984). Lazarus proposes that stress is not a stimulus or a response, but a relationship between the person and his/her environment that is appraised as taxing or exceeding present resources. The theory identifies two processes, cognitive appraisal and coping, as mediators of stressful person-environment relations and their immediate and long-range outcomes.

Cognitive appraisal is a process through which the person evaluates whether a particular encounter with the environment is relevant to his or her well-being, and if so, in what ways. Lazarus perceives appraisal as involving two dimensions: primary appraisal and secondary appraisal. In primary appraisal, individuals evaluate "what is at stake?" and "how much does it matter?" Folkman et al. (1986) operationalized primary appraisal to include threats to self-esteem; threats to a loved one's well-being; not achieving an important goal at work; harm to one's own health, safety, or physical well-being; strain on financial resources; and losing respect for someone else.

Secondary appraisal is a judgment concerning what might and can be done to overcome or prevent harm, or to improve the prospect for benefit. In secondary appraisal, various coping options and resources are evaluated as to their availability and efficacy. For Lazarus, coping efforts are dependent on personal resources (e.g., health, positive beliefs that serve as a basis for hope, social skills, problem-solving skills), and environmental resources (e.g., social supports, material resources). Coping is also influenced by both personal and environmental constraints that may mitigate the use of resources. Personal constraints, for example, may include internalized cultural values and beliefs that proscribe certain behaviors. Environmental constraints may arise from competing demands for the same resources, or from agencies that thwart coping efforts. Along with resources and constraints, the level of perceived threat may also influence coping efforts. For example, high levels of threat may prevent the effective use of coping resources. Primary and secondary appraisals converge to determine whether the person-environment transaction is regarded as significant for well-being, and if so, whether it is primarily threatening (containing the possibility of harm or loss) or challenging (holding the possibility of mastery or benefit) (Folkman et al., 1986).

Lazarus and Folkman (1984) propose that both "person" and "situation" variables influence appraisal. Two person variables singled out as being particularly significant are commitments and beliefs. Commitments are an expression of what is important and meaningful to people, and they underlie the choices people make. Moreover, commitments incorporate a motivational quality that guides people into situations and sustains actions. Beliefs also influence the perception of events and shape the understanding of their meaning. For Lazarus, beliefs about personal control and existential beliefs are of particular interest in stress theory. Although commitments and beliefs are considered significant, they have received little research attention other than by those researchers who espouse a more "trait or dispositional" orientation to coping (e.g., Antonovsky, 1987; Kobasa et al., 1981).

Situational factors are those properties inherent in the situation (encounter) itself that create the potential for threat, harm, or challenge. Lazarus and Folkman (1984) assert that such situational characteristics as novelty, predictability, uncertainty, ambiguity, and the timing of events in relation to other events will influence how the focal event is perceived. In other words, situational factors emphasize one aspect of the environmental component in the person-environment relationship. In summary, the individual's perception of the event or "definition of the situation" is influenced by individual beliefs and commitments as well as by characteristics of the situation itself; the meaning of the event ultimately shapes the individual's emotional response and subsequent coping efforts.

Lazarus and Folkman (1984, p. 41) define coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands appraised as taxing or exceeding the resources of the person". These authors have identified two major functions of coping: managing or altering the problem causing the distress ("problem-focused coping"), and regulating emotional responses to the threat ("emotion-focused coping"). Empirical studies suggest that people generally use both forms of coping in most situations and that these two forms of coping may mutually facilitate or impede each other (Folkman & Lazarus, 1980; Folkman & Lazarus, 1985). It will be noted that these two functions of coping are similar to those identified by Pearlin and Schooler (1978). Pearlin's functions of "changing the meaning of the event" and "managing the symptoms of stress" are incorporated in Lazarus' more broadly-defined "emotion-focused coping". For Lazarus, "appraisal" is considered to be a coping strategy when it occurs as a "reappraisal of the event", resulting from new information from either the person or the environment. While it may be possible theoretically to differentiate appraisal from reappraisal, Folkman (1984) acknowledges that it is often difficult to differentiate an initial "benign appraisal" of an event from an emotion-focused coping technique (e.g., "defensive reappraisal"). That is, coping strategies can have an appraisal function in that they shape the meaning or significance of an event and, further, many forms of appraisal can have a coping function in that they help to regulate distress.

Folkman et al. (1986) emphasize two key features of the transactional model. First, it is process-oriented; that is, it focuses on what a person actually thinks and does in a specific encounter and how this changes as the encounter unfolds. In contrast, trait approaches (Kobasa et al., 1981; Antonovsky, 1987) are concerned with what the person usually does. While acknowledging that coping is a process, these latter authors tend to emphasize stability of responses across situations. Second, coping is contextual; that is, it is influenced by the individual's appraisal of demands in the encounter and resources for managing these demands. Person and situation variables together shape coping efforts. In sum, Lazarus argues that in order to predict sources of stress and ways of coping, a "cognitive-phenomenological" approach must be employed, in which beliefs and commitments that shape cognitive appraisal are explored as well as the demands, constraints, and resources of the immediate social environment (Lazarus & Folkman, 1984). Social demands or normative expectations for behavior create stress when these demands conflict, are ambiguous, or lead to overload. "Ultimately, stress depends on how roles are valued, and how conflict, ambiguity, and overload are coped with" (p. 242). In this statement, Lazarus and Folkman underscore Pearlin's seemingly stronger emphasis on the social aspects of stress and coping.

The major tenets of the transactional models of Lazarus and Pearlin seem particularly suited for the present study. Pearlin's emphasis on the interplay of events on social roles is especially relevant because HCWs' experiences at work may affect and be affected by the family domain. Second, his affirmation of the influence of life events and strains on the individual's self-concept may be beneficial to explore in relation to the HCWs' concepts of the professional self.

Lazarus' emphasis on the perception of the event in terms of what is at stake and what coping actions are available to deal with the threat is particularly germane to the present study. HCWs' beliefs and commitments to self, family, and profession may influence risk perception. The unpredictability, novelty and ambiguity of the AIDS situation may further influence risk perception. Furthermore, the AIDS literature suggests that situational factors may change as new information and resources are provided. Lazarus' model emphasizes changing patterns of appraisal and coping as situational and/or personal factors change due to outside influences or coping efforts. The model incorporates the influence of potential resources (e.g., social support) on coping efforts as well as constraints that may interfere with the use of available resources. The literature on coping with the threat of AIDS does not address these factors to any extent.

Although the transactional models of Lazarus and Pearlin are conceptually attractive, they pose an array of methodological problems. First, and perhaps foremost, identification of the coping process as an unfolding flow of events with appraisal and coping interacting with one another is difficult to capture in cross-sectional retrospective designs that do not permit evaluation of causality. Required instead are ipsative (intraindividual) research designs wherein it is possible to observe the same person over time (Lazarus & Folkman, 1984). A second but related issue is the ordering of relationships among components of the stress paradigm. For example, what are the mechanisms whereby coping strategies mediate the relationship between stress and its manifestations? At what points in the stress process do they mediate? Are the relationships unidirectional or reciprocal? Wheaton (1985) has outlined the problems inherent in testing quantitatively for the relationships among components of the stress process.

Third, measurement of the various constructs individually and of the coping process as a whole can be difficult. For example, Lazarus and Folkman (1984) suggest that there have been few systematic examinations in coping research of the complex thoughts and evaluations people make when confronted by a threatening encounter. If coping is to be assessed in terms of a specific situation, then it is necessary to assess what the demands are from the informants' perspectives and what the informants actually thought, felt, and did. Moreover, the functions served by coping efforts in any specific instance can be known only by a careful examination of the context in which coping occurs. This may require that people reconstruct recent events and describe what they actually thought, felt, and did (Lazarus & Folkman, 1984). Folkman et al. (1986) identify a related issue, "microanalytic" versus "macroanalytic" assessment techniques. They suggest that in most assessment tools, appraisal and coping measures are relatively global items rather than being situation specific. Highly situation-specific appraisals and strategies may not be captured in global assessment scales but may require instead a qualitative approach.

Finally, in conducting research on coping using retrospective accounts, there are problems with inadequate memory, retrospective falsification, and identifying the coping thought or act connected with different phases of the encounter. Closely related to these problems is the validity of self-report data. In a "cognitive-phenomenological" model, however, subjective reports remain the basis of data collection because they are the only means available to capture how people view their world and the meanings that they attach to events (Lazarus & Folkman, 1984).

In this section, I have identified the major constructs in the transactional stress and coping paradigm and discussed the relevance of this paradigm for the present research. Within this paradigm, as elaborated by Pearlin and Lazarus and their colleagues, perception of the event is a crucial component of the coping process. In the present research, the circumstance or situation to be appraised is not a discrete event that has occurred but rather is the potential risk of being harmed, "the risk of acquiring HIV infection and AIDS". The following section will focus on factors that may influence this risk appraisal.

2. Risk Appraisal

Until recently, the risk appraisal literature has been dominated by a psychological orientation developed primarily by cognitive psychologists. This approach has led to information about the dynamics of risk perception with an emphasis on the judgmental biases individuals use in processing information (Slovic et al., 1980). More recently, there has been an attempt to integrate these psychological factors with social and cultural dimensions (e.g., Johnson & Covello, 1987; Douglas, 1985). Both of these approaches seem particularly relevant to the perceived risk of acquiring HIV infection and AIDS. In this section, I will outline major findings from these two orientations.

One of the most important findings to emerge from the psychological literature on risk perception is that individuals take into consideration a large number of factors in evaluating the seriousness of risk, and hence, its acceptability. "Expert" assessments of risk are based on a "normative" model of risk acceptance in which consequences of risk are presented as quantified summary measures, and probability distributions are constructed through technical estimation. These "normative" risk models claim a "universal" rationality and ignore value and belief issues (Otway & von Winterfeldt, 1981). In contrast to expert normative models, "lay descriptive" models of risk acceptability acknowledge that beliefs and values underlie acceptability. Research by Slovic et al. (1980) demonstrated that while experts equate risk and fatality rates in judging the probabilities of rare events, laypersons' risk judgments were only moderately related to fatality rates. In other words, even though people were aware of statistical probabilities, the risk appeared to mean something more to them than technical estimates of expected fatality rates.

Considerable research has been directed toward identifying dimensions of risk that may influence risk perception and acceptability. Although the distinctions and relationships between these dimensions are far from clear cut, it is nevertheless possible to list a number of factors that are likely to be important in explaining the public's perception of risk acceptability:

- *Voluntariness of risk.* Involuntary exposures to risk as opposed to risks taken by one's own choice are generally regarded as less acceptable (Slovic at al., 1980; Fischhoff et al., 1978; Vlek & Stallen, 1981; Otway & von Winterfeldt, 1981; Royal Society, 1983; Hale, 1987).

- *Controllability of risk.* Lack of personal control over the occurrence and outcome of risk has been associated with a decreased likelihood of accepting the risk, whereas a belief that one's personal actions can succeed in removing the danger or its consequences is more likely to lead to risk acceptance (Hale, 1987; Vlek & Stallen, 1981; Otway & von Winterfeldt, 1981; Slovic et al., 1980; Fischhoff et al., 1978).
- *Familiarity of risk.* The extent to which the risk is "known" has been found to influence risk acceptability. More specifically, uncertainty about the probability or consequences of exposure has been associated with perceptions of greater risk, whereas situations in which the risk is "known to science" and to those exposed are perceived as less dangerous (Otway & von Winterfeldt, 1981; Slovic et al., 1980; Hale, 1987; Fischhoff et al., 1978; Vlek & Stallen, 1981). Moreover, people treat more lightly those risks to which they are frequently or continuously exposed, whereas lack of personal experience with risk appears to increase perceived danger (Slovic et al., 1980; Royal Society, 1983). In addition, Otway & Pahner (1980) found that difficulty in conceptualizing or imagining a hazard was correlated with a perception of greater danger. In a similar vein, Slovic et al. (1980) reported that the extent to which damage-producing processes are observable as they occur is negatively correlated with the perceived gravity of risk. Finally, perceptions of "delayed-effects" of present risk exposure have been associated with increased seriousness of risk (Otway & von Winterfeldt, 1981; Slovic et al., 1980).
- *"Catastrophic" potential of risk.* The perception of risk in terms of its potential to destroy life has emerged as a major factor in risk perception. This "seriousness" involves both the severity of the consequences as well as the number of deaths that result from a single accident. Risks whose consequences may result in a large number of deaths from a single accident are perceived to be less acceptable than those whose consequences are spread out over more occurrences (Vlek & Stallen, 1981; Royal Society, 1983; Slovic et al., 1980;

Fischhoff et al., 1978; Hale, 1987). Moreover, the genetic effects of risk exposure in terms of its threat to future generations was found to increase the perception of risk in several studies (Otway & von Winterfeldt, 1981; Slovic et al., 1980). Psychological research by Lichtenstein et al. (1978) also suggests that people often overestimate the risks of dramatic causes of death, and that this may be due in part to a greater memorability and imaginability of these events. Any factor making risk more memorable, such as its recent occurrence or intense media coverage, may distort risk perception (Johnson & Covello, 1987).

- *Benefits accruing from risk.* Otway and von Winterfeldt (1981) point out that when there is a perceived inequity to the risk bearer the risk will be perceived as less acceptable. Similarly, the Royal Society (1983) reports findings that risks imposed for the benefit of others are less acceptable than risks incurred for one's own self-protection. Hale (1987) cites research which suggests that differential assessments of risk are arrived at if the person at risk of being hurt is also the one who benefits from the dangerous activity as opposed to situations where the potential victim must accept the danger as part of an activity for which someone else is the main beneficiary. Finally, Slovic et al. (1980) found that degree of perceived risk is positively correlated with the perception that benefits are inequitably distributed among those at risk.

The methodology used in most of the above studies involved respondents rating a number of hazards on a number of determinants of risk. Researchers caution that the particular set of hazards and the particular set of risk characteristics under study can have an important effect on the nature of the observed dimensions of risk (Royal Society, 1983; Fischhoff et al., 1978).

At a more macro level, the classic work in the cultural construction of risk is that of Mary Douglas, a British social anthropologist, and Aaron Wildavsky, an American political scientist (1982). These authors assert that societies selectively choose to highlight some risks and to downplay others and develop institutionalized means for controlling selective risks but not others. Moreover, people do not focus on particular risks simply to protect their health or safety, or their environment, but rather make choices that reflect their beliefs about "values, social institutions, nature, and moral behavior" (Johnson & Covello, 1987, p. viii). In other words, risk perception is not an objective reality, but a social process (Douglas & Wildavsky, 1982, p. 6). The risks selected for attention, therefore, may have little relationship to "real" danger; instead, their significance may be determined by social and cultural factors.

Johnson and Covello (1987) have suggested ways to integrate the psychological perspective with the more macro cultural approach to risk perception. Their collection of research works entitled *The Social and Cultural Construction of Risk* illustrates how both social and cultural factors influence the individual's perception of risk. Several of these studies seem particularly relevant for the perception of risk of acquiring HIV infection and AIDS and will now be discussed briefly.

The role of the media in shaping risk perceptions has received considerable attention (e.g., Tarr & Jacobson, 1987; Short, 1984; Sharlin, 1987). Sharlin (1987), in a study of media reporting of the risks associated with the pesticide ethyl dibromide (EDB), described how an emphasis by the US Environmental Protection Agency (EPA) on the "macro-risks" of EDB (i.e, aggregate statistics for the nation as a whole) exacerbated public fears and concerns. He suggests that EPA's failure to provide "micro-level" risk information (i.e., from the individual citizen's perspective, or "what does this mean to me personally?") allowed the media to dramatize the risk. As a result, public fears and concerns, not "actual" risk, became a major factor in the decision by EPA to ban EDB. This study illustrates the media's ability to influence the risk agenda of agencies, particularly in situations where risks are unfamiliar and characterized by scientific uncertainty. It is not difficult to see how the situation in this study may have parallels to the attention given by the media to the AIDS issue.

The importance of social ties on the social construction of risk has been explored by Fowlkes and Miller (1987) and Fitchen et al. (1987). Fowlkes and Miller (1987) found that individuals' placement in the life cycle and their social networks determined risk perceptions of the hazardous waste site at Love Canal, New York. Those individuals who minimized the risk were older and without children at home, had links with the local chemical industry, were relatively isolated from neighborhood social networks, and were strongly attached to their homes which they viewed as their principal economic resource in old age. "Maximalists", by comparison, had close links with others in the community. Moreover, many of those who perceived the risk as substantial and who thought that chemical contamination was more widespread than officially acknowledged were young parents who shared interests and maintained frequent contact with other young parents in the area. Concern for their children led many of these young parents to downgrade property issues and, instead, emphasize health issues. Compared to the "minimalists", "maximalists" were more active in seeking out risk information and gave greater credence to what they learned from others, particularly from nonofficial sources. Fitchen et al.'s (1987) case study of possible water contamination in New York state revealed that perceptions of risk undergo reinterpretation and change through time. Several general "public" perceptions emerged as the current "accepted" interpretation of risk. These collective perceptions may act as a filter through which individuals perceive risk. Moreover, in this study, social construction of risk at the local level was influenced by the local context in which the risk was embedded. This study also illustrates that the credibility and trustworthiness of the institutions providing information can affect perceptions. More specifically, trust in the local government to handle potential water contamination minimized anxiety about health risks.

The way in which information is presented (i.e., framed as costs or benefits) also influences risk perception (Kahneman & Tversky, 1984). Moreover, the definition of what constitutes a benefit or a cost is informed by social and cultural factors. This is illustrated by M. S. Brown (1987) in a qualitative study that examined workers' perceptions of occupational risks. Although management did not always provide information about risk hazards, in those situations where workers were provided with full information, their responses to this information could be classified into three types:

denial, acceptance, and activism. *Denial* of risks was especially common when adverse health effects were not immediately evident. Brown suggests three main factors encouraging denial: (a) "cognitive dissonance", the belief that only an irrational person would work in a dangerous job so the job must be safe; (b) group norms, a "machismo" attitude fostered through peer pressure by fellow workers and supervisors; and (c) a desire to preserve existing relations with coworkers and supervisors. The second major response to occupational hazards was *acceptance* of the risks, buttressed by a belief that hazards are an acceptable risk of the job. This acceptance took several forms. Some informants believed that risks had been reduced as low as possible, and that the benefits of the job compensated for the residual risk. Some workers derived substantial satisfaction from their job despite its hazards. One firefighter, for example, said, "the risks are always in the back of everybody's mind [but]...at the same time they're put in the background because of the nature of the job. The primary job is rescue...that outweighs the hazard...your own life kind of gets put in the background" (M. S. Brown, 1987, p. 264). Other workers saw their job as enhancing their quality of life and therefore were willing to incur a calculated risk. Still others viewed their work within a broader context as a contribution to society as a whole. In contrast to those who saw their job as intrinsically worthwhile, others worked for money rather than self-fulfillment and simply resigned themselves to the risk. The third response to occupational hazards was *activism*. While rare, those workers who responded with activism appeared to be motivated primarily by personality characteristics (e.g., unwilling to accept a status quo perceived as unfair, questioning of authority in general, being outspoken) and concern about the future of their children rather than by a different perception of risk per se. In summary, this study points out that risk perception is rooted in social relationships (e.g., work and family) and is influenced by the range of choices perceived to be available to alter the risk situation.

A major issue in the risk analysis literature is the discrepancy between "expert" and "public" opinion. Fischhoff et al. (1981) suggest that while this discrepancy is often interpreted as a clash between actual and perceived risk, they, instead, maintain that this disagreement may result from differences in objectives, terminology, problem definition, feasibility, or different perceptions of the facts. Moreover, they caution that expert opinion is not as objective as is often assumed, and lay opinions often take into account many more factors in assessing risk than do expert opinions. Consistent with this view, Freudenburg (1988) asserts that the dichotomy between "real" and "perceived" risk is usually less than is often assumed, particularly in cases involving uncertainty. He exposes the "irrationality" of expert reasoning used in calculating risk consequences and risk probability, reassesses the "rationality" of public perceptions, and concludes that public opinion may be neither "irrational" nor totally "rational" but, instead, may reflect a degree of prudence that is not commonly realized, much less appreciated. He contends that this prudence is especially important in situations where there is a large element of the unknown, where potential consequences of mistakes could be especially severe, and where errors are irreversible. Furthermore, publics are prudent to question technical "experts". While it is often assumed that experts are unbiased, objective, and value-neutral in evaluating the significance and acceptability of risk, experts themselves are influenced by social, cultural, and professional values and commitments. In fact, at its most fundamental level, the core of the scientific enterprise itself, "expert knowledge", is an "agreed upon reality" because the criteria for acceptance and rejection of new scientific knowledge are themselves social constructs (Berger & Luckman, 1967; Johnson & Covello, 1987; Kuhn, 1970).

The major determinants of risk perception discussed in this section have been applied to the AIDS situation by Nelkin and Hilgartner (1986) in their descriptive account of the legal proceedings of a controversy between parents and school boards ("lay") and city health officials ("experts") regarding whether a seven-year old child with AIDS should be allowed to attend public school. Analysis of the proceedings revealed that both sides sought to control the definition of risk and the interpretation of evidence. Different perceptions of risk were evident. The adequacy of scientific knowledge was a central issue including questions about what constitutes adequate evidence and how to respond to incomplete scientific knowledge. The school board brought up "worst case scenarios", whereas the city focused on "relative risk"; the school board wanted guarantees, the city focused on "odds". The city cited evidence suggesting virtually no risk, whereas the school board emphasized gaps in knowledge, arguing that evidence about the probability of transmission did not rule out its possibility. Scientists, "socialized to avoid definitive statements", used a language of probability, which the school board interpreted as lack of knowledge. "Confusion reigned between evidence and proof, facts and theories, findings and explanations, probable judgments and unassailable conclusions" (p. 127). Credibility of expertise, legitimacy of procedures, and balance of rights and responsibilities were other contentious issues. Nelkin and Hilgartner (1986) conclude that the observed public fear of AIDS can be explained by the nature of the risk--the consequences of AIDS are devastating, uncontrollable, involuntary, irreversible, and unfamiliar. Moreover, risk perceptions are influenced by a range of cultural, political, and institutional factors. Beliefs about AIDS are embedded in symbolic and political issues. "Unclean body fluids, taboo sexual conduct, forbidden drugs, deviant individuals and deadly disease become mutually reinforcing metaphors of physical, moral, and social danger" (p. 139). This "social construction of AIDS" has been articulated by most social analysts attempting to explain the societal response to AIDS (e.g., Brandt, 1986; Conrad, 1986; Eisenberg, 1986).

In this section on risk appraisal, I have discussed several factors that influence perception of risk. The studies cited suggest that risk perceptions depend not only on the nature of the hazard itself but also on the social and cultural context in which it is embedded. The importance of social factors in individual coping will be expanded upon in the following section wherein I discuss the influence of social support in alleviating stress in the occupational setting through its effect on appraisal and coping efforts.

3. Social Support and Work Stress

This section will briefly review relevant issues on social support and work stress. In this discussion, I will outline general findings on the role of social support on occupational stress. Then, in the final section of this review, I will concentrate more specifically on the "family-work" interface, especially on the interplay of stressors and responses between these two domains. These two sections emphasize further the significance of the social context of individual coping.

Most of the research on the effects of social support on stress reactions has not been conducted in the context of the work situation. Moreover, what has been done in examining the role of social support in job stress has yielded equivocal findings (Marcelissen et al., 1988; Glowinkowski & Cooper, 1985). Although social support is included as an important variable in various transactional models of occupational stress (e.g., House, 1981; Davidson & Cooper, 1981), the research in this area is fraught by "lack of conceptual clarity, insufficient agreement on definitions, and divergent operationalizations" (Marcelissen et al., 1988, p. 366).

In the occupational stress literature, social support usually is conceptualized using House's (1981) formulation, which contains four dimensions: emotional support (esteem, affect, trust, concern, empathy); instrumental support (behaviors that directly help the person in need--money, labor, time, environmental modification); informational support (providing information that can be used in coping with problems--advice, suggestions, directions, information); and appraisal support (information relevant to self-evaluation--affirmation, feedback, social comparison). Although these support *functions* can be distinguished conceptually, in naturalistic settings they may not be independent (House, 1981; Cohen & Wills, 1985). For example, instrumental aid may convey caring and concern and thus may resemble emotional support in its effects. The *sources* of support that have been studied most frequently are spouse, supervisor, coworker, and friends/relatives. Finally, support is perceived as reducing occupational stress (and thereby influencing well-being) in three major ways. First, social support (at least from people at work) can directly affect exposure to work stressors by reducing sources of stress (e.g., lessen role conflict, prevent interpersonal tensions), thereby indirectly improving well-being. Second, support can influence well-being directly by meeting important needs for affection, regard, belonging, and understanding (the "social embeddedness" argument). That is, positive effects of support on well-being can offset the negative effects of stress. Third, social support can buffer the individual against the negative consequences of stressors at work (Marcelissen et al., 1988; House, 1981). It is this buffering effect that has been given the most emphasis in the literature on occupational stress and social support. The buffering effect assumes that social support can alleviate the negative effects of stressors in several ways, such as by fostering the motivation to deal with distressing problems, helping with the solution, reducing anxiety, or altering the cognitive analysis of the problem (Rook, 1984). More generally, it may be said that social support may influence the individual's appraisal of the "stressor" and may facilitate efforts at behavioral and cognitive coping (Cohen & Wills, 1985; Thoits, 1984). More specifically, support may play a role at a variety of different points in the causal chain linking stress to well-being. For example, social support may intervene between the stressful event (or expectation of the event) and the perception of stress by attenuating or preventing a stress appraisal response. That is, others may help to redefine the potential for harm posed by a situation or bolster one's perceived ability to cope with demands and thereby prevent a particular situation from being appraised as threatening. Adequate support may also intervene between the appraisal of "threat" and the onset of consequences of stress by reducing or eliminating the stress reaction, as for example, by providing a solution to the problem, by reducing the perceived importance of the problem, or by facilitating healthful behaviors that increase one's ability to tolerate stress (Cohen & Wills, 1985; House, 1981). Wheaton (1985) identifies two buffering models: (a) an interactive model in which the effect of a stressor is conditional on the level of social support, and (b) an additive (resource mobilization model) in which stress mobilizes increased support, which then attenuates the stress effect. Wheaton (1985) further suggests the possibility that social support may serve a "dual buffering role", having both additive and interactive effects.

The classic empirical research on social support and occupational stress was conducted by House and his colleagues at the University of Michigan (e.g., House, 1981; LaRocco & Jones, 1978; LaRocco et al., 1980), using a transactional model of occupational job stress. House (1981) reported the effect of social support on work stress, health, and the relationship between stress and health in a large workforce of male factory workers. Measures of perceived social support (largely emotional) from four different sources (supervisors, coworkers, spouses, and relatives and friends) were collected. In considering the main effects of social support, data revealed that supervisor support reduced all forms of perceived job stress (i.e., reducing exposure to stress) but manifested a weaker indirect effect in reducing disease (i.e., reducing consequences of stress). Coworker support had small to moderate main effects on reducing perceived stress but no effect on health outcomes. Nonwork sources of support had little effect on perceived work stress or on health outcomes. When considering the buffering effects, these authors found that social support did exert buffering effects between perceived occupational stress and self-reported symptoms of physical and mental ill health. The buffering effect, however, generally reflected the impact of a single source of support (i.e., spouse or supervisor) rather than support from a number of different individuals. Moreover, supervisor support and wife support exerted the strongest buffering effects with few buffering effects exerted by coworker, friend and relative support. House (1981) suggests that the relative lack of coworker effect may be due to the way work is organized in the factory (i.e., individual, machine-bound, with tightly controlled work schedules, which may reduce coworker cohesion and interaction). Finally, this study showed that social support buffered the effect of stress on some health outcome indicators more than on others; that is, support exerted its effect on those outcomes that were particularly sensitive to interpersonal processes (i.e., ulcers and neurosis).

LaRocco et al. (1980), using a sample of 2000 male workers in 23 different occupations, tested the generalizability of the above study by examining the impact of nine measures of perceived work stress (e.g., workload, role conflict) on three measures of affect about the job (e.g., job dissatisfaction, boredom) and four indicators of psychological strain (e.g., anxiety, depression, somatic complaints). As in the above study, support from home had little effect on perceptions of job stress, while support from supervisors and coworkers had main effects on perceived stress and on job-related outcomes. Analysis also revealed significant buffering effects with respect to the health-related outcomes but only chance results with respect to job-related outcomes. In support of the earlier study of factory workers, supervisor and home support remained important but, in contrast to the previous study, coworker support appeared to be much more important buffering almost twice as many stress-strain relationships as did supervisor and home support. This may be due to the variety of occupations studied, including professional, managerial, craft, and service workers, all of whom may rely more heavily on colleague support than did the factory workers in the previous study. Overall, the results showed work-related sources of support to be more important than home support, probably because the stress measures used in the study were highly specific to the work setting. More general indexes of stress may have shown effects for both home and work support (Cohen & Wills, 1985).

In summary, House's studies suggest that different sources and perhaps types of support may be important in different work contexts. Whether social support has main or interactive effects may depend on how job stress and its consequences are operationalized. In this regard, Seers et al. (1983) make the point that interaction effects will be more evident in those studies that operationalize job stress in terms of role conflict rather than role ambiguity because support has a greater impact on role conflict than on role ambiguity. Different aspects of job stress may be affected differently by different sources of support. Furthermore, how job stress consequences (outcomes) are operationalized (e.g., affective measures, functional measures, or physiological measures) may also determine which type of support will be influential. Moreover, how these outcomes are measured (e.g., self-report, physiological measures) may also influence results. Glowinkowski and Cooper (1985) further contend that the nature of the work will influence the mechanism of social support. That is, support may be more significant in those situations characterized by interpersonal relationships. In addition, they suggest that career stage may influence the potency of different sources of support. For example, young managers may find a superior's support more significant, while older managers may find coworker and subordinate support more valuable. In short, the above findings suggest that future research must specify under what conditions what kinds of social support from what sources will have what kinds of effects (House, 1981).

Cohen and Wills (1985), in an extensive review of the social support literature, conclude that there is evidence consistent with both main effects and interactive effects of social support. They posit that evidence for a buffering model is found when there is a "reasonable match" between the coping requirements in a specific situation and the available support. Specific events elicit particular coping requirements. Buffering effects are observed when the support functions (i.e., instrumental, emotional, appraisal, emotional) measured are the most relevant for the stressors faced by the individual. Moreover, these authors argue that because of the nature of the stress process (which often results in feelings of helplessness due to a perceived lack of control and to a loss of self-esteem), social support that functions to provide emotional and informational support may buffer a great variety of stressful events. Informational support that helps one to reappraise an event or that suggests appropriate coping responses would counter a perceived lack of control, whereas emotional support may counter threats to self-esteem. On the other hand, instrumental support will buffer only in those situations where the specific need elicited by the event is related to the need for instrumental support.

In contrast to House and his colleagues, who emphasize buffering effects, Marcelissen et al. (1988) assessed the main effects of social support provided by supervisors and coworkers among a sample of 2000 employees in 21 Dutch companies. Their findings indicate that only social support by supervisors exerted a causal effect on exposure to stressors (e.g., role conflict, overload) while at the same time having little effect on stress outcomes (e.g., worry, irritation, or health complaints). An additional interesting finding of this study was that stresses (strains) had causal effects on the social support received by coworkers and not vice versa. That is, increased stress led to decreased support from coworkers. This suggests that colleague relationships may be negatively influenced by the affective strains of individuals (e.g., worry, anxiety, anger, depression). These authors assert that coworkers may be reluctant to approach persons who are "negative", including those who are fearful or anxious. On the other hand, supervisors may view the giving of support as part of their role. Workers themselves may feel embarrassed by their feelings of anxiety and therefore may not seek out support from their fellow workers. Fear of being negatively evaluated for discussing socially disapproved feelings may further restrict them from seeking support. In work settings, these people may fear being labelled as "incompetent" or "unprofessional", which may be perceived as threatening their career opportunities. These findings may be especially relevant in relation to HCWs dealing with AIDS because various authors have suggested that HCWs may experience embarrassment and guilt about their feelings (e.g. Geis & Fuller, 1985; Amchin & Polan, 1986). Marcelissen et al. (1988) call for research that analyzes the interpersonal processes which take place when help is sought and offered.

Very little research addresses directly and in depth the issue of coworker relationships among nurses. Several studies, however, suggest that nurses' conflictual relationships with others, including coworkers, supervisors, and other personnel can be a source of job stress (e.g., Jacobson, 1983; Bailey et al., 1980; Gray-Toft & Anderson, 1981). On the other hand, there is some evidence that coworker support increases job satisfaction. For example, Decker (1985) found that positive work relationships with headnurses and coworkers increased job satisfaction and decreased nurses' propensity to leave the hospital. Norbeck (1985), using House's (1981) theoretical model, found that coworker support was associated with lower levels of stress outcome measures among married, female, critical care nurses, but not among their unmarried counterparts. A study by Gray-Toft and Anderson (1983), employing a quasi-experimental design, revealed that support groups reduced hospice nurses' perceptions of work-load stress. An in-depth qualitative study of 26 psychiatric auxillary nursing staff by Browner (1987) concluded that staff with supportive work-based social networks reported significantly better health than those without such networks. Significant variation was also found in informants' definitions of social support, their expectations of coworkers, and the number of "support" persons sought out. In short, these studies demonstrate a generally positive effect of work-related social support.

The role of the family as a source of support for nurses has not been studied extensively. Research by Turnipseed (1985), cited in Ray et al. (1987), revealed that married nurses who work in hospices have less stress and burnout than unmarried nurses, but this could be due to a variety of factors other than social support, such as age or experience in the job. Norbeck (1985), in the study cited above, found that unmarried, female, critical care nurses received more support from friends and less from relatives than did married nurses. Only the support from relatives, however, was effective in reducing stress for the unmarried nurse. For married nurses, in contrast, a variety of support sources were significantly related to outcome stress measures. Clearly, there is need for further research in this area, given the rising importance of the "family-work" interface discussed in the following section.

4. Family/work Interface

Although there has been considerable research on stress in both the work and nonwork spheres, much less is known about the interplay of stressors and strains between these two areas. This section will review major issues in the linkage between stress and strain at the intersection of work and family domains.

The interplay of work-nonwork stressors has been conceptualized in a number of ways. Greenhaus and Parasuraman (1986), in an integration of research findings on work and nonwork stress, propose three main categories to envision this linkage. The first category, the ***work-nonwork additivity*** approach, assumes that the greater the number of stressful domains encountered and the more extensive the stressors in each domain, the greater the degree of stress and strain that will be experienced. That is, the total amount of stress and strain experienced is a function of both work and nonwork stressors. The second category, the ***work-nonwork spillover*** approach suggests that a spillover effect occurs when the strain produced by stressors in one domain provokes stressful situations in another domain. The original stress can arise from either domain. Spillover from work to nonwork usually is perceived as strain from "work being transferred to the nonwork domain through emotional interference"(p. 44). For example, Kanter (1977) observed that employees who experience "interaction fatigue" at work may withdraw from personal contact at home. Similarly, emotional tension at work can produce either aggressive or withdrawal behavior in the family domain (Bartolme & Evans, 1980). Spillover from nonwork to work has been little explored. Some researchers, however, have found that negative life stress is associated with decreased job satisfaction and organizational commitment and with increased job strain, job alienation and turnover intentions (e.g., Bhagat et al., 1985; Sarason & Johnson, 1979).

The third approach to conceptualizing the family-work interface, the *work-nonwork conflict* approach, is an interactive conceptualization in which pressures that arise in one domain may be exacerbated by the simultaneous occurrence of pressures in the other domain. In this situation, unlike the other two approaches mentioned, the antecedent conditions in the work and nonwork domains may or may not be stressful in and of themselves, but their joint occurrence is likely to produce stress. This stress is a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation in one role is made more difficult by virtue of participation in the other role. Greenhaus and Beutell (1985), in an examination of the literature on work-family conflict, suggest three major forms of this work-family conflict: (a) time-based conflict, (b) strain-based conflict, and (c) behavior-based conflict.

Time-based conflict results when multiple roles compete for a person's time and where time devoted to one role makes it difficult to fulfill the requirements of another role. This conflict can occur when time pressures associated with one role make it physically impossible to comply with expectations arising from another role, or when time pressures produce a preoccupation with one role even when one is physically attempting to meet the demands of another role. Work-related sources of this conflict may include inflexible work schedules, shiftwork, and the sheer number of hours worked. Family-related sources of conflict may include the requirements for large amounts of time in family activities because of young children, spouse employment patterns, and so on.

Strain-based conflict exists when strain in one role affects performance in another role. Strain created by one role makes it difficult to comply with the demands of another role. The "negative emotional" spillover research of Bartolome and Evans (1980) suggests that stressful events at work produce tension, worry or frustration that make it difficult to pursue a satisfying "nonwork" life. Similarly, family-related sources of conflict can lead to work-family conflict. For example, husband-wife disagreement regarding the wife's employment status was found to contribute to work-family conflict (Eiswirth-Neems & Handal, 1978). In other words, spouse dissimilarity in fundamental beliefs can weaken mutual support and produce stress (Greenhaus & Beutell, 1985). On the other hand, supportive spouses may protect each other from high levels of conflict (Holahan & Gilbert, 1979). In sum, these findings suggest that strain, conflict, or absence of support in the family unit may contribute to work-family conflict. Moreover, extensive time involvements in either work or family domains may lead to strain symptoms. That is, "time-based" conflict may lead to "strain-based" conflict.

Behavior-based conflict results when specific patterns of role behavior may be incompatible with expectations regarding behavior in another role. Greenhaus and Beutell (1985) found no empirical research that directly addressed this conflict. They cite evidence, however, that the behavioral styles males exhibit at work (e.g., impersonality, logic, power) may be incompatible with the more expressive behaviors desired by their family members.

Greenhaus and Beutell (1985) suggest several areas for further research in the area of work-family conflict. First, role salience and self-perceptions of role requirements and their effect on conflict needs to be addressed. These authors cite some evidence that persons for whom work and family are both highly salient and central to the person's self-concept are particularly susceptible to work-family conflict. Another area for further research is the influence of sanctions for noncompliance of role expectations on family-work conflict. Greenhaus and Beutell (1985) hypothesize that work-family conflict will be strongest when there are negative sanctions for noncompliance with role demands. Moreover, they posit that men traditionally have experienced stronger sanctions for noncompliance with work demands than for noncompliance with family demands, whereas women have been exposed to stronger sanctions for noncompliance with family demands. Importantly, sanctions may arise not only from other role senders but also from the focal person (e.g., guilt). If sanctions do strengthen role pressures, then it may be expected that those who are exposed to strong sanctions from both domains would be most susceptible to work-family conflict. This may have particular relevance for the present study, where real or perceived 'professional' expectations of HCWs may conflict with family concerns about the HCWs caring for PWAs. Finally, these authors call for research that examines how support from significant others is related to work-family conflict. More specifically, they suggest that models of social support be applied to work-family conflict by investigating the impact of specific dimensions of support (e.g., emotional, instrumental, informational, appraisal) on time, strain, and behavioral pressures within the work and family domains.

None of the literature reviewed in the general area of work-family conflict addressed the specific issue of work hazards that can directly affect the physical health of the family. Although there is some research indicating that spouses of policemen, for example, worry about the safety of their husbands (Davidson & Veno, 1980), the situation in which spouses perceive themselves to be at risk for contracting disease transmitted by the worker tends to be overlooked in the research literature. Furthermore, the various instruments developed by nurses to identify work-related stressors have not included the risk of contracting disease, largely because this has not been a salient issue before the emergence of AIDS (even though, it may be argued, that nurses have always been at some risk of contracting disease). Work-family conflict in the nursing literature is not addressed in any depth, although it is acknowledged by several authors and is perceived primarily in terms of time conflicts and emotional and physical strain due to increased work involvement (e.g., Lee, 1986; Marshall, 1980; Delvaux et al., 1988). It has been suggested that the area of work-family conflict likely will increase as a source of pressure for nurses because the tradition of the nurse as a single woman with no family responsibility is fast disappearing (Marshall, 1980). Perhaps, it may also be added that the "secularization" of nursing may have decreased the more common previous commitment of "self-sacrifice". How the ethics of professionalism affect this development is yet to be determined.

C. SUMMARY

In this chapter, I have discussed the research relating to HCWs' responses to caring for PWAs. Most of the research in this area has focused on the HCWs' appraisal of risk and factors that may account for variation in risk perception. While these studies have identified HCWs' concerns, they have, however, given far less attention to ascertaining the meaning of risk from the perspective of the HCWs. Such an exploration would provide greater insight and understanding of risk perception. Moreover, in contrast to the considerable literature addressing risk perception, much less research has been directed to examining how HCWs manage their feelings of risk. Existing studies do not explore in any depth the emotional responses experienced by HCWs who care for PWAs and the strategies employed to cope with their perceptions of risk.

A further "gap" identified in the literature review is the relative lack of emphasis on the social context of individual coping. More specifically, HCWs' responses to the concerns of their families has been little explored. While several studies acknowledge the concerns that HCWs and their significant others may have about the HCWs' risk of acquiring HIV infection and AIDS, no study describes in depth how HCWs deal with this concern.

The purpose of this study, then, is to begin to address the deficits identified in the research to date regarding HCWs' responses to AIDS in an effort to increase understanding of nurses' experiences of caring for PWAs. The general theoretical orientation in this exploration is the stress and coping paradigm. The coping literature was reviewed in terms of major constructs that will guide the initial data collection and analysis. The "gaps" identified in our current knowledge of nurses' responses to caring for PWAs point to the need for a research methodology that allows nurses to describe their experiences from their perspective. A discussion of the research methodology employed in this study is the focus of the next chapter.

III. METHODOLOGY

In this chapter, I will discuss the research methodology under five major sections. I will begin with a discussion of the rationale for the use of a qualitative design. Next, I will describe the procedure used to select informants. Then I will outline the procedure for collecting the data. The fourth major area will be a discussion of the strategy for data analysis. In the final section, I will address the ethical considerations of the study.

A. RATIONALE FOR QUALITATIVE METHOD

This study will be exploratory in nature, using a qualitative design, in keeping with the inductive method. A qualitative design was considered appropriate for several reasons. First, the phenomenon under study is not well understood (Field & Morse, 1985; Miles & Huberman, 1984; Stern, 1980; McCracken, 1988; Glaser & Strauss, 1967). More specifically, although there has been considerable study regarding the stressors encountered by nurses working in stressful situations (such as intensive care units) and the coping strategies that they employ (e.g., Jacobson, 1983; Bailey et al., 1980; Gray-Toft & Anderson, 1981), these studies do not address the risk of contracting disease. The literature devoted to nurses' coping strategies in relation to caring for PWAs is extremely limited. Moreover, no studies explore how caregivers cope with their families' fears of contagion. Currently, therefore, no instruments are considered valid for this study. Field and Morse (1985) caution that invalidity occurs when researchers attempt to create instruments from the literature or their experiences, rather than beginning with a qualitative study to assist with the definition of concepts. Global assessments of coping do not allow one to focus on the specific issues that necessitate coping responses (Lazarus & Folkman, 1984). Qualitative methods permit a "well-grounded sense of the local reality in a particular setting" (Miles & Huberman, 1984, p. 151). Furthermore, the complexity of the AIDS situation including the social meanings associated with the disease can best be captured by qualitative methods (Chenitz & Swanson, 1986; Corbin, 1986; McCracken, 1988). In-depth interviews will yield rich descriptions and understandings of the HCWs' inside experiences in caring for PWAs.

Second, the nature of the research questions calls for a qualitative design. The aim of this study is to gain an understanding of the nurses' experiences from their perspective, including how they perceive the nature of the risk, what it means to them, and how they respond to their perceptions. Qualitative methods are most useful and powerful when describing phenomena from the "emic" perspective, that is, from the respondent's viewpoint (Field & Morse, 1985; McCracken, 1988; Schwartz & Jacobs, 1979). Moreover, the affective aspects of coping can best be described by qualitative methods, which permit greater freedom in describing events (Field & Morse, 1985). McCracken (1988) asserts that questions which are not amenable to ready and unambiguous responses are best addressed by the broader more flexible net provided by qualitative techniques.

Third, qualitative methods can best capture the dynamic nature of coping. Coping efforts may shift over time, as the result of changes in both the individual's perception of the event and/or environmental demands and resources (Lazarus & Folkman, 1984). Ascertaining from informants their changing appraisal and coping responses may provide an understanding of processes occurring in specific contexts. The need for intraindividual research to assess coping has been advocated by stress researchers (Folkman et al., 1986; Lazarus & Folkman, 1984). Lazarus and Folkman (1984) remind us that very little research to date deals with coping strategies over time. They further point out that there is a need for research that focuses on the thoughts and evaluations that people make when confronted with threatening events. Qualitative in-depth interviewing allows the researcher to capture changes, both in actual behavior and in subjective meaning (Field & Morse, 1985). Where informants are asked to reconstruct events, a qualitative approach allows them to set the direction of their responses while still permitting the researcher to use probes for clarification and elaboration. In sum, with qualitative data "one can preserve chronological flow, assess local causality, and derive fruitful explanations" (Miles & Huberman, 1984, p. 15).

1. Theoretical Perspective

A major theoretical perspective of the methodology of qualitative research is symbolic interactionism (Chenitz & Swanson, 1986; Schwartz & Jacobs, 1979), as developed by Mead (1934) and Blumer (1969). Symbolic interactionism is a theory of human behavior, but it is also an approach to the study of human conduct and human group life (Chenitz & Swanson, 1986). Symbolic interactionism focuses on the meaning of events to people in everyday, natural settings. It is concerned with how people define events or their reality and how they act in relation to those beliefs. For symbolic interactionists, meaning guides behavior, and a definition of the situation precedes action. The reality or meaning of the situation is created by people and leads to action and consequences of action. According to Blumer (1969), symbolic interaction rests on three basic premises: (a) Human beings act toward things on the basis of meanings that the things have for them, (b) The meaning of such things is derived from, or arises out of, social interaction, and (c) These meanings are modified and handled through an interpretive process used by the person in dealing with the things he or she encounters.

These postulates suggest that meaning is created by experience. People are constantly in a process of interpretation and definition as they move from situation to situation (Bogdan & Taylor, 1975). Moreover, phenomena and people are subject to redefinition and new meanings through interaction. While situations are defined differently by different people because of unique life experiences, actors in similar positions may also develop a shared definition of the situation, a "shared perspective", because of their opportunity for social interaction (Bogdan & Taylor, 1975).

The symbolic interaction perspective has several implications for research activity. It implies that the researcher needs to understand behavior as the participants understand it, learn about their world, learn their interpretation of self, and share their definitions. It also implies that an analysis for contextual circumstances be done to establish larger symbolic events that create definitions and shared meanings in the situation (Chenitz & Swanson, 1986). The researcher must understand the world from the participant's perspective in order to reach the level of insight that Max Weber termed "verstehen" or understanding.

Grounded theory, as first described by Glaser and Strauss (1967), incorporates the basic symbolic interaction concepts as articulated by Mead and Blumer. However, as pointed out by Schwartz and Jacobs (1979), Glaser and Strauss also accept the Weberian view that sociology is not merely a rich description of other people but should be directed toward theories that explain social action. Weber reminds us that sociology is a "science whose object is to interpret the meaning of social action and thereby give a causal explanation of the way in which the action proceeds and the effects which it produces" (Weber, 1922/1978, p. 7). In short, Weber's conception of sociology combines a concern for the individual (her motives and meanings) with the eventual goal of causal scientific explanations (Schwartz & Jacobs, 1979).

The transactional coping paradigm (Lazarus & Folkman, 1984; Pearlin & Schooler, 1978) also focuses on the importance of meaning. Cognitive appraisal or the perception of risk is based on the meanings and values assigned to the stressor event. Moreover, these authors view the person and the environment in a dynamic, mutually reciprocal, bidirectional relationship. Cognitive appraisal depends on a set of environment and person characteristics and can be altered when changes occur in the environment, the person, or both. This emphasis on context reflects the symbolic interaction perspective that meaning arises from and through social interaction and may change from situation to situation.

B. SELECTION OF INFORMANTS

1. Gaining Entry to the Agency

Gaining entry to the study group of informants required obtaining access to a formal organization in which nurses were employed. The particular agency chosen for this study is a large, acute-care hospital located in a Western Canadian city. This hospital was chosen because it admits the majority of patients with AIDS in this city. Initially, an informal contact was made with the director of nursing research, in which I briefly outlined my project and requested permission to use the agency to select informants. This initial informal contact was useful in getting "valuable information on how to access the institution and the steps required for ethical clearance" (Field & Morse, 1985, p. 51). The director provided me with information about the unit to which most PWAs are admitted. I then contacted the supervisor of the unit, who expressed interest in the project and volunteered to apprise her staff of my research the following day at a staff meeting. She subsequently informed me that her staff nurses were interested in participating and also gave me information about other nursing units who also care for PWAs. I then contacted these supervisors and gave them preliminary information about my research. All five supervisors contacted were very supportive of the project. In this regard, Field and Morse (1985) point out that it is wise to seek out those who will be directly involved in the research because they will probably be consulted before ethical clearance is given by the agency. Prior sharing of information will increase commitment to and cooperation with the project. After presenting the research proposal to the hospital Ethics Committee and receiving ethical clearance to proceed, I then contacted the supervisors of the nursing units to plan the most appropriate way to approach staff nurses about their potential involvement.

2. Gaining Entry to the Study Group

To obtain as much diversity in the sample as possible both for methodological reasons and to protect the anonymity of informants, I tried to obtain informants from five different nursing units and from the "float" pool of nurses who are not permanently attached to any one unit. The method of obtaining informants varied and was influenced by the supervisor's perceptions of the most efficient way to elicit nurses' responses. On all the units, I entered a brief description of the project on the "computer mail" that nurses review daily. A printed notice was also posted on the units (Appendix A). On four units, I met with the nurses informally to explain the project in terms of its purpose, the methodology to be used, issues of confidentiality, the demands their participation would involve, and the importance of their involvement. On two of the units, I attended meetings on two different occasions to meet as many nurses as possible. With all units, I followed up the initial information giving with a phone call to the supervisor to ascertain if the staff nurses had any questions or concerns. I also submitted a notice in the newsletter that circulates among the medical and psychiatric nurses' float pool (Appendix A). Later on in the study, I contacted three psychiatry units when it became evident from the data that "psychiatric" patients with AIDS present particular concerns to nurses. The supervisors on these units, however, admitted to having very few patients. Although they discussed the research with their staff (and I sent information), no nurses from these units volunteered to participate.

The only initial criteria for participating in the study were that the participant must be a registered nurse who had cared for PWAs or for persons testing positive for HIV antibody. After nurses were provided with an explanation of the study as described above, they were asked to contact me. This method of recruitment protected the informants' identities by ensuring that others on the unit would not know that they were participants. Although the majority of respondents were obtained in this manner, one nurse was contacted by me on the suggestion of one of the other informants. Another was sought out to increase the diversity of the sample in a direction that seemed useful to explore given the incoming data. This is in keeping with the sampling technique of grounded theory and other qualitative approaches (Glaser & Strauss, 1967).

3. Characteristics of Informants

Thirteen nurses were interviewed. Their demographic characteristics are presented below. No effort was made to ascertain how representative this group of nurses is of all nurses who care for PWAs or how representative the sample is of nurses on the particular units where they work. The major purpose of this profile, then, is to permit "comparability" to other groups (LeCompte & Goetz, 1982).

- AGE: The age of respondents varied from 22 to 68 years. Five nurses were between 20 and 29; 5 were between 30 and 39, and 3 were 40 years of age or older.
- MARITAL STATUS: Six nurses were single; 7 nurses were married, 6 of whom had

children (of these, 4 had children at home).

- EDUCATION: All nurses were graduate nurses with a diploma in nursing, one nurse had a nursing baccalaureate degree.
- GENDER: Twelve nurses were female, one nurse was male.
- WORKING STATUS: Eleven nurses worked full time, 2 worked part time.
- YEARS OF NURSING EXPERIENCE: Nursing experience ranged from just under 2 years to 26 years. One nurse had worked less than 2 years; 5 nurses had worked for 2-5 years; 3 had worked for 6-10 years; and 4 had worked for over 10 years.
- EXPERIENCE IN CARING FOR PWAs: This variable ranged from 18 months to 7 years and reflected both the prevalence of AIDS in the area and the years of general nursing experience. Six nurses had cared for PWAs for less than 2 years; 5 had cared for patients for 2-3 years; and 2 had nursed PWAs for more than 3 years.

The respondents were from three different units, with the majority from the unit that cares for PWAs routinely.

C. DATA COLLECTION

1. Procedure

Data were collected by tape-recorded interviews. Thirteen informants were interviewed in 21 interviews, with 8 informants interviewed twice. The data were collected between June, 1989 and January, 1990, with the majority of interviews conducted in June, July, and August of 1989. All but one of the interviews were held in an office in the hospital library. One interview was held in the nurse's home. Most interviews were conducted on the nurses' days off. Three nurses were interviewed during work time. Two were interviewed before their shifts for their second interview, and one nurse chose to be interviewed after her work shift for both interviews. Interviews before work invariably led to a hurried ending, because the interviews were always longer than anticipated. All interviews but one (a second interview) were well over one hour, with most being from 90 minutes to 2 hours and several lasting from 2 1/2 to

3 hours. The initial 7 informants were interviewed twice. Second interviews were used to clarify ambiguous data, to expand on thin areas, and to verify and expand on information obtained by other informants. The second interviews and interviews with the last six subjects were more "focused."

Because of the nurses' schedules and vacation times, the interval between first and second interviews varied considerably from 8 days to 7 months, with the majority ranging from 1 1/2 to 4 months. This time span proved advantageous, particularly towards the latter part of the data collection period when coding was well underway, and themes were becoming more evident. Between interviews there was time to transcribe the interviews and begin analysis. The time span also allowed me to reflect on the data and interviewing style and to discuss preliminary findings with my supervisor. This provided direction for future interviews. The transcribed interviews yielded over 900 pages of typed transcripts (using THE ETHNOGRAPH format of single-spaced type on half the page).

2. Interview Schedule

Given the exploratory nature of the research, a relatively unstructured approach to data collection was used. The "sensitizing" or theoretical orientation that guided the initial data collection format was that of coping with risk. This formed the theoretical perspective for gaining conceptual entry into the subject matter. Sensitizing concepts form guidelines and reference points to deductively formulate questions that elicit data that leads to the formulation of inductive concepts (Glaser, 1978). Miles and Huberman (1984, p. 29) assert that sensitizing frameworks are useful because they provide orienting constructs that outline the main dimensions to be studied and thereby function as "focusing and bounding devices yet need not work as blinders or strait jackets".

In an attempt to elicit from the respondents their own thoughts and feelings, the questions guiding the interview were broad and open-ended. The use of general, nondirective, and open-ended questions within the broad domains to be studied allow respondents to tell their stories in their own terms. In this method, the researcher follows the direction set by the informants, using neutral probes to help respondents elaborate and clarify responses. This approach to data collection ensures that the researcher will obtain all required information, yet within each question the opportunity for exploratory unstructured responses remains. In this way, the interviewer can take advantage of the contingency of the interview and pursue serendipitous findings as they present themselves, thereby going beyond initial preconceptions and frameworks (Miles & Huberman, 1984; McCracken, 1988). In my study, broad questions were asked initially with no mention of "risk" or "coping" to prevent a "risk" framework from being imposed. Such a framework may bias the information sought and delimit the responses. Instead, the purpose was to see how risk of contagion fit in with other feelings and concerns. Choice of language is important in reflecting values. Therefore, it was important to let respondents discuss their thoughts and feelings in their own choice of words. Finally, the use of broad questions means that one is more likely to work with substantial chunks of data, making it easier to get the individual's "cultural logic", the context in which ideas occur (McCracken, 1988). McCracken (1988) reminds us that for analytic purposes, it is necessary not just to capture ideas but also to apprehend the context in which they occur. As McCracken (1988, p. 25) says, "context is the small amount of seawater that keeps the catch alive".

The interview schedule (Appendix B) contains the broad questions with the more specific probe questions. Because the data collection was ongoing with the data analysis, the interview format was refined from time to time to explore new leads and to expand and qualify emerging categories. For example, the silence surrounding exposures and testing was not explored with all participants because it did not "surface" with the initial informants.

D. DATA ANALYSIS

The method of data analysis was based on the constant comparison method (Glaser & Strauss, 1967; Miles & Huberman, 1984). The objective of qualitative analysis is to determine categories and relationships that inform the respondents' definition of the situation in general, and the topic in particular (McCracken, 1988). The major task of the analyst is to code the data into categories and then define, develop, and integrate them. Analysis proceeds in stages, each representing a higher level of generality (Glaser, 1978). Grounded theory aims to generate theoretical constructs which help to explain action in a particular setting. While coding and analysing the data, the researcher looks for patterns. Incident is compared to incident, incident with category, and finally, category with category. Such comparison leads to a teasing out of emerging themes or more abstract categories.

1. Discovering Categories

The data from each interview were transcribed into a format compatible with THE ETHNOGRAPH computer software program for analysing qualitative data (Seidel & Clark, 1984). Following each interview, I read the transcripts while listening to the tape to ensure the accuracy of transcription and began recording initial thoughts and ideas about the data.

In coding the data, a guiding "accounting scheme" (Lofland & Lofland, 1984; Miles & Huberman, 1984) was used in the initial "questioning" of the data. The guiding scheme was the general orienting framework of the research questions. That is, the data were analyzed for nurses' perceptions of risk, coping strategies and influencing factors. While much of the data could be incorporated by these large domains, other areas quickly became apparent as well. All of the data were coded with specific codes in a process resembling Glaser's (1978) "open-coding", whereby the analyst codes for as many categories that may fit. Incidents were compared to incidents to see if new codes were needed or if codes could be expanded to include previous ones. Using this method, 96 codes were applied to the data. To facilitate the next step of comparing codes to codes, THE ETHNOGRAPH program was used to retrieve all occurrences of each code for comparison. Each set of retrieved codes was stored in a separate file folder. The task now became one of linking the codes to one another and forming more abstract categories.

2. Linking Categories

Categories were linked by two major methods. Glaser (1978) has provided us with a family of theoretical codes. The primary "6 C's", the "bread and butter" theoretical codes, include causes, contexts, contingencies, consequences, covariances, and conditions. In addition, I also used the "type" or "dimension" family and the "strategy" family in questioning the data. More specifically, one asks "Is this category a type or dimension of another category? Can this category be divided into more than one type? Under what conditions does this occur? What are the consequences? What else happens when this occurs? and so on. The ETHNOGRAPH program facilitated this linking because it allows the coder to code a particular segment of data in a variety of ways. Codes can be nested within a broader context (which is coded differently). The computer output indicates all codes that overlap or are embedded with other codes. In this way, preliminary relationships are detected for more in-depth analysis.

Another way to link categories is through the process of reduction (Stern, 1980; Corbin, 1986). Categories are compared to one another to ascertain whether they could be elevated to a more general category. Because the focus of the research was coping, strategies became an important theoretical code. Strategies were compared to one another to determine their similarities and differences and to determine what different functions they served. The linkages between categories of strategies were often in terms of the functions they served. Conditions and contingencies which influenced these strategies were linked to specific strategy categories. Through this process, five major categories of coping tasks were identified in relation to coping with the risk of contagion. The relation between these tasks was also determined by using the 6 C's.

Glaser (1978) suggests that the core variable (or category) is the variable that occurs frequently in the data, links various data together, and explains variation in the data. The dominant or main category (gaining a sense of control over risk) was obtained by asking several questions (Corbin, 1986; Glaser, 1978; Stern, 1980) of the data: (a) What is the main story line, the main pattern, or theme? (b) How do other categories relate to it? (c) What categories do all other categories seem to be leading up to? and, (d) What umbrella category would encompass other categories?

Throughout the analysis, I kept a journal of methodological issues and concerns where I recorded ideas and thoughts for further data collection, feelings about the process of interviewing, contacting respondents, and so on. I also kept a folder of "memos". "Memos are the theorizing write-ups of ideas about codes and their relationships as they strike the analyst while coding" (Glaser, 1978, p. 83). These memos were begun with the initial interview and continued throughout the analysis. Memos often suggested gaps in the data collection and set the direction for further data gathering. They alerted me to themes that were becoming apparent and pointed to areas that required further clarification, refining, and verification. They also suggested pertinent theoretical literature to aid the analysis. In addition to these analytical memos, I also summarized the main points of each interview in a separate file folder. This proved helpful in providing a quick reference for each respondent.

A final step in analysis is to link the findings to existing theory to see how the findings confirm, extend, refine, or refute existing literature (Glaser, 1978; McCracken, 1988). In this research, findings were compared to existing general social psychological theories as well as to more middle-range theory such as coping, stigma, and risk and finally to the pertinent literature in the substantive area of HCWs' responses to AIDS. A review of related literature in areas other than AIDS also helped to increase "theoretical sensitivity", thereby aiding analysis (Glaser, 1978).

3. General Framework of Findings

The thesis will be organized around the five major coping tasks. The following is a brief explanation of the relationship of these tasks to each other and to the category of "Perception of Risk".

Coping with the risk of contagion in a professional context involves achieving a sense of control over the uncertainty of acquiring HIV infection and AIDS while caring for PWAs. Nurses' perception of risk focused on two major dimensions: the seriousness of the consequences of exposure and the uncertainties inherent in the risk situation. Uncertainty resides in the incomplete knowledge of the disease and in the nurses' perceived abilities to cope with those situations that may accidentally expose them to HIV. This appraisal results in efforts to achieve a "sense of control" over exposure. Nurses used a variety of coping strategies to achieve a sense of control over exposure. Moreover, their efforts were related to five major categories, which can be viewed as coping tasks. These are:

- Making risk "manageable"
- Making risk "meaningful"
- Maintaining professional self-esteem
- Managing others' responses to risk
- Managing "actual" exposure

a. Making risk "manageable". Making risk "manageable" is the most important coping task and involves efforts to protect oneself from harm by attending to the risk situation itself and managing the fears related to exposure. The strategies in this category are directed toward reducing the threat of risk in terms of its ability to cause harm, and thereby achieving a sense of control over risk.

b. Making risk "meaningful". This task involves finding meaning in the presence of risk and centers on justifying risk. The perceived aversiveness of risk is decreased by changing the significance of the risk in terms of its meaning. That is, risk is made more acceptable by making it meaningful.

c. Maintaining professional self-esteem. Nurses' efforts here relate to presentation of self to self and others in a manner that maintains the nurses' professional self-esteem. This involves achieving a sense of control over the feelings that threaten one's self-image.

d. Managing others' responses to risk. An additional coping task for nurses caring for PWAs is that of reassuring others that they are "safe". Nurses' efforts are directed toward helping others to see the risk as both "manageable" and "meaningful" and, in effect, can be viewed as efforts to achieve control over others' perceptions and reactions.

e. Managing "actual" exposure. This final task is different from the others in that it focuses on coping with actual exposure rather than coping with the risk of exposure. It was not a task faced by all nurses and arises because of an exposure to HIV-infected blood or body fluid resulting in a breakdown of nurses' sense of control over risk in terms of manageability, meaningfulness, or both. Coping strategies in this category are directed toward achieving control over the emotional distress created by exposure and regaining a sense of control over the risk of future exposures.

Although these five coping tasks are interrelated, the first two tasks--making risk manageable and making risk meaningful--are "primary" in the sense that these two tasks influence most strongly how nurses address the other tasks. Moreover, not all nurses experience difficulty in all tasks, but all need to address these two primary tasks if they are to become comfortable with caring for patients because these two tasks most directly influence risk acceptability.

These five coping tasks constitute the organizational framework for the presentation of findings in the thesis. Each of these five tasks will be addressed in terms of the strategies used to meet the demands suggested by the task. Factors that facilitate or impede coping efforts will be integrated with the discussion of coping strategies.

E. ETHICAL CONSIDERATIONS

The ethical issues that are particularly germane to this study relate to the problems encountered when conducting qualitative research with a small number of participants. This assumes greater importance in the present study because participants may also be known to each other. Additionally, the sensitive nature of the topic to be explored may require added precaution to ensure that participants "suffer no harm". Three major considerations are particularly salient: providing for ongoing voluntary participation, ensuring anonymity and confidentiality, and addressing issues arising from the interview process.

1. Ongoing Voluntary Participation

The nurses were given a full explanation of the study in my preliminary meetings with them as a group and again at the time of the interview. They were informed that any questions they had about the study would be answered, that they could refuse to answer any questions, and that they could withdraw from the study at any time. Traditionally, the concept of informed consent assumes that in order for individuals to make informed decisions about whether to participate in research they will require information of the project's risks and benefits. This assumes that the investigator understands the risks and benefits a priori. The nature of qualitative research, however, makes it impossible to give complete information about the research endeavor at the beginning of the project (Larossa et al., 1981). Although it is possible at the outset to inform participants in a general way of the purpose, methods of study, and potential risks and benefits, the unstructured nature of data gathering makes it difficult to predict with certainty the issues to be discussed. Consequently, informants may give information that they may later regret having shared with the researcher. To ensure voluntary ongoing consent, I told participants at the outset that as the interview proceeds, they may request that previously taped segments be erased and that I would do this in their presence. Further, if informants preferred to talk about an issue with the recorder off, I would not use the information in summary form without their permission. Only one nurse requested that I turn off the recorder for information that she felt should be "off the record". Her comments were not considered pertinent to the topic so permission was not requested to use the information in summary form.

2. Ensuring Anonymity and Confidentiality

Ensuring anonymity and confidentiality is a concern during the course of the study and in the publication of results. Informants were assured that the information that they provided would not be shared with agency staff or administration. Audiotapes, transcripts, consent forms, and demographic data were kept in a locked filing cabinet. To ensure anonymity during the study, only code numbers were used to identify the tapes, transcripts, and demographic data sheets. Demographic data were recorded separately from transcripts so that the transcriber would not be privy to this information. Only the researcher had access to the code lists and consents. To protect the identities of subjects on the tape, I informed the participants that I would not call them by name during the interview. Although nurses are well aware of maintaining confidentiality in regard to patients, as a precautionary measure I reminded nurses not to use real names when referring to patients. If identifying names were inadvertently recorded, I would blank these out on the transcripts. Because of the nurses' familiarity with their patients and other staff members and hospital personnel, nurses occasionally did use names. Nurses were assured that upon completion of the study the identifying code lists would be destroyed. The audiotapes and transcripts would be stored in a locked filing cabinet for potential future analysis. Nurses were informed that before this information is used again, permission must first be obtained from the appropriate ethics review committee.

Nurses were informed that the dissertation and any resulting publications will be available to all and that these will contain quotations from the interviews. Nurses' identities and that of the agency, however, will remain anonymous.

While it may be relatively easy to preserve the anonymity of the informants relative to the wider public, it is more difficult to ensure anonymity of subjects to those within the agency. In this regard, Archbold (1986) reminds us that "in small social systems where everyone knows everyone, even slight cues...may reveal a person's identity...it may be necessary to discard or thoroughly disguise data to protect subjects" (p. 158). In this study, the method of recruiting subjects protected informants' anonymity. First, nurses were recruited from more than one nursing unit. Second, they were asked to contact me if they wished to participate so that others would not need to know who was in the study. Third, most nurses came for interviews on their days off. Finally, when nurses volunteered others as potential subjects, I phoned the potential subject but did not reveal the name of the person suggesting her. In spite of the precautions cited, however, there is always the possibility that others, including administrative staff, may be able to identify respondents. This may be unavoidable. If, however, informants are apprised of the manner in which research results are reported and disseminated, then the researcher must respect their decision to participate voluntarily in the study (Boss, 1987). The informants' perceptions of how the institution will respond to "unwelcome" results may influence how participants view the "risks" of participation. This, however, is a situation over which the researcher has no control. Given the focus of this particular project, it is most likely that results will be used constructively to support nurses and ultimately benefit patients.

Maintaining anonymity may also be facilitated by the length of time from data collection to publication. Nursing personnel may have changed (and indeed this was the case even before data collection was completed), making it more difficult to identify individuals.

3. Issues Arising from the Interview Process

As participants relate their experiences, they may relive "old traumas", open old wounds, or bring into awareness issues that may cause anxiety or concern (Ford & Reutter, 1990). While the researcher cannot predict this and must respect the autonomy of those who agree to participate in the research, the investigator must remain vigilant for such possibilities (Boss, 1987). Mahler (1986) contends that "the investigators incur a special obligation to identify and remediate harm resulting from such a study" (p. 8). I informed participants at the time of the interview that should they have any concerns following the interviews, they were welcome to call me. This study did open up "old traumas", particularly as nurses related their experiences with actual exposures. For one nurse, this exposure was the motivating force for her participation in the study. For another, talking about the exposure did bring back unpleasant feelings. In both of these situations, I elicted their feelings about discussing their experiences with me. Both nurses admitted that it was "good to talk about it" even though it brought back unpleasant memories.

Informants were given a copy of the informed consent form (Appendix C). They were told that if they had any concerns about the study they should also feel free to contact my supervisor. The proposal of the study received ethical approval from the Ethics Review Committee of the University of Alberta Faculty of Arts and by the agency in which the study nurses were employed (See letters in Appendix D).

The next six chapters of the thesis will present an analysis of the findings of the study. In chapter IV I will discuss the nurses' perceptions of risk. The subsequent five chapters will be organized around the five major coping tasks identified from the data--making risk manageable, making risk meaningful, maintaining professional self-esteem, managing others' responses to risk, and managing "actual" exposure. Relevant literature will be integrated throughout the analysis in keeping with the methodology of grounded theory (Glaser, 1978).

IV. PERCEPTION OF RISK

The risk of acquiring HIV infection and AIDS from caring for PWAs was a concern for all of the nurses interviewed. While the extent of this concern was variable and changed over time, nurses perceived that caring for patients was threatening because of the possibility of becoming exposed to a deadly virus. In their initial encounters with PWAs, fear was the most commonly expressed emotion accompanying this appraisal and is reflected in the following statements:

> D2: I was scared; it was just...fear of the unknown.
> D4: I was terrified the very first--my very first one. I guess fear of the unknown.
> D5: My first experience with an AIDS patient was really scary 'cause I wasn't sure of myself.
> D8: It was scary the first time. I was scared to death.
> D13: I was probably quite terrified of fear of contracting the disease itself.

This appraisal of threat arises out of nurses' perceptions of the potential harmful consequences that the risk presents as well as from their perceptions of resources available to prevent these consequences. More specifically, an appraisal of threat resulted from the nurses' perceptions of the high stakes involved (particularly, the fatal nature of the disease) as well as from their perceptions of their abilities to meet the demands posed by the risk. The relationship between "how could I be harmed" and "can I prevent or alleviate harm" is succinctly expressed by D6:

> When you are nursing the AIDS patients and you know that if you get it that you are not going to get over it, you are going to die, oh yes, you have a lot of questions, you have a lot of fear. Though these all surround the one question: [is] what I do...going to be all right or am I going to get it?

In this chapter, I will describe the nurses' perceptions of risk in terms of the threat it presents for nurses' commitments to three major areas: their life and health, their significant others, and their professional self-esteem. Next, I will discuss the nurses' feelings of uncertainty in relation to the risk of contagion. This will provide insight into the initial demands posed by risk and the nurses' perceptions of their abilities to meet these demands. Finally, I will discuss two general factors that influence nurses' feelings of uncertainty. While I acknowledge that it is often difficult, if not impossible, to separate initial appraisals from reappraisals, particularly in a study using retrospective self-reports, this chapter will focus primarily on risk appraisal as perceived by nurses in their first encounters with PWAs, unless otherwise indicated. This focus on initial appraisal is particularly evident in the section describing nurses' uncertainties about AIDS.

A. THREATS TO LIFE AND HEALTH

1. "AIDS is a Death Sentence"

Much of the threat of AIDS results from the nurses' perceptions of the disease itself, particularly its fatal nature. The predominant theme expressed by nurses in terms of what was at stake in caring for patients was the threat to life itself. In fact, paradoxically, the many uncertainties and ambiguities with which nurses are confronted in their work assume heightened significance because of the perceived certainty of death once infected with HIV. Nurses perceived that the eventual outcome of HIV infection is AIDS and then death. Only one nurse mentioned that a positive HIV status may not necessarily lead to AIDS. It is this perceived seriousness of the threat in terms of its consequences that is a major influence in how risk is perceived and managed. The intensity of the threat is reflected in the following statements:

> D1: It's such a dreadful thing to have 'cause you know it's your death sentence. It is such a fear for me, since it is such a threat because it's your life...it really is fatal. AIDS is fatal...up until now you don't have a cure. And who knows when you will.

In anticipating her reaction should she be exposed, D6 underlines that the fatal nature of the disease is the source of her fear:

> I would be very, very fearful simply because it's a death sentence if you've got it. You don't get over it, you don't recover from it, you may recover from it for a year, eight months, six months, but you don't, it's a death sentence. Someone says to you...you are dying from the HIV and you make plans to die...you put your house in order because there is nothing else...nobody is going to cure you.

As indicated by these comments, although the outcome is perceived to be certain death, the course of the disease is perceived to be ambiguous, which adds to the potential ramifications of an exposure:

> D6: If you do manage to get HIV, the chances of your survival are zero. Even if you're asymptomatic for a long time. It doesn't mean to say that somewhere down the road you're not going to have a small taste of it, and then a larger taste, then a larger taste, and then you're dead.

D4 describes how the uncertain time period from exposure to seroconversion created additional stress for herself and a colleague following exposure:

> You don't know sort of where you stand...Like the first little while, it was her whole life...should she ever get married or should she ever have sex--because she might have it. It might not show up--they didn't know how many years at that time it could be dormant.

The uncertain outcome of an exposure is further reflected in a nurse's use of metaphor, "It's probably just as good as playing Russian roulette...[if exposed] you've got that one in 'x' [chance] of getting killed...in the end".

While the outcome of exposure is extreme, the risk of seroconverting (i.e., becoming HIV positive after exposure) is extremely low. However, when comparing their concerns of HIV infection and AIDS with acquiring other diseases, it is apparent that the perceived *seriousness* of the disease, in terms of its fatal consequences, outweighs the importance of the perceived *likelihood* of becoming HIV positive. Although nurses acknowledge that hepatitis B, for example, is much easier to get, it is not perceived as uniformly fatal in its consequences and therefore poses less of a threat:

> D3: And so...[AIDS] is death row, it's like going to death row. Whereas hepatitis B, I don't know we never, ever heard or rarely heard of anyone dying from it. It was something that certainly was devastating to you, and the very easiest, mildest episode would take a year for your body to get over. But it was nothing like this. I didn't have the same sense of fear [with my first hepatitis B patient]...that I did of my first AIDS [patient].

> D6 [in comparing her care with hepatitis B patients]: OK if you do get it [hepatitis B] and it is...one out of eighty-five that will get it, but it is curable, you get over it and AIDS you don't...That's a death sentence. That I think, is where everybody stumbles. You don't get over AIDS. You are not going to live if you get AIDS. You are going to die.

D9 summarizes the consequences of the perceived fatal nature of AIDS in terms of the feelings evoked:

> It's far different in how you feel...walking [into a room] thinking you might get this from some interaction you have with the patient. So I guess the more serious the disease, the more fear you have and the more apprehension you have about the implications of your getting it.

2. "It Could Be Me"

The threat of death is made more concrete as nurses are confronted with dying patients in their daily work. Moreover, the degree of similarity between the patient's situation and that of the nurse appeared to influence perceived vulnerability. The most frequently mentioned factor of similarity was the age of the patient. Marshall (1980) suggests that patients act as a mirror for nurses' own vulnerabilities and death, and that the impact of the mirror is accentuated when the patient is seen to be similar to the nurse. Most nurses corroborate this view as they comment on the need to face their own mortality:

> D11: And I think that's the difficult part, watching somebody young die, like somebody around your own age. It just brings the reality of death so close to home because it's not something that happens fifty years down the road, it's a reality today.

> D4: And I find it very hard in that way...because they're all so young. And most of them are younger that I am. And anytime you have somebody younger than you dying it brings it to [you] that...you can die too. It's not just old people who die...If you're not confronted with death, you think just old people die. But when you see somebody your age or younger dying, you realize that it can happen to you.

For D5, young patients' deaths came to symbolize her own potentially shattered "hopes and dreams":

> That's someone that's my age, who has the same dreams and ambitions that I have and here they're dying...someone young, your own age, that's hard to watch.

Moreover, D7, who had recently cared for a female patient, speculates that similarity not only of age but also of gender may increase a feeling of vulnerability:

> I'm afraid for the time when we're going to start getting...young girls my age. It's hard enough working with young men my own age, but it kind of gets to hit close to home...I guess if we ever had a young female patient that I could really identify with, it would probably really make me think twice about it.

D6, who is a wife and a mother, describes how caring for a patient whose life circumstances were similar to her own made her more compassionate but also more vulnerable:

> Maybe I felt a little bit more compassionate towards her...because she was female, she had a family, she was a wife, and she was a mother...The female gets it because she has had a transfusion, well you think, Oh Lord, there but for the grace of God, go I, it could be me.

Those nurses who are older than their patients and have family members whose gender and age are similar to the patients also personalize the patients' situations. Two nurses, for example, identified "that could be my son", hence making more concrete the vulnerability of family commitment. Interestingly, a male nurse who cared for PWAs did not directly describe feelings of vulnerability due to similar circumstances. However, his comments may indirectly project a feeling of vulnerability, as part of his commitment to care appears to derive from the similarity he shares with PWAs. He states, "What happens if I'm in that situation sometime in the future...Am I going to say, well I didn't care so why should anybody else?"

In addition to the similarities perceived in their own and their patients' situations, the number of deaths on the unit appeared to intensify feelings of vulnerability by making it more difficult for nurses to avoid confronting their own or their family members' mortality. One nurse, who had experienced four deaths within one month, suggested that "when we have a lot of deaths at once, it really makes us think about our own or someone in our family who could die. That's scary."

Perceiving similarity is for nurses a two-edged sword. While it helps them to accept patients as people with whom they can identify, it also makes them feel more vulnerable. Other researchers have described the "countertransference" that may occur when nurses care for those who are similar to themselves (Friedland, 1989; Macks, 1988; Dunkel & Hatfield, 1986). Friedland (1989) goes so far as to suggest that "caring for dying young men and women of a similar age makes identification unavoidable and confrontation with their own mortality and vulnerability inescapable" (p. 67). These authors contend that working with similar others may challenge the distinction between the self and others and, in essence, the denial of his or her own risk of HIV and of death itself.

3. The "Horror" of Dying of AIDS

Not only is AIDS perceived as a certain death sentence, it is a sentence of a particular kind. Most nurses describe the process of dying of AIDS in negative and often ~~graphic and~~ metaphorical terms as a horrible, unnatural death. Death occurs among those in the prime of life and is viewed as a painful, demeaning death that destroys its victims by degrees. Nurses comments verify that "AIDS is an excruciatingly cruel and relentless disease...its repetitive onslaughts and the wasting, disfigurement, neurologic dysfunction, and disability it produces are disturbing" (Friedland, 1989, p. 66):

> D7: When people die a death of AIDS, it's usually a terrible, horrid, ugly, painful death. So it doesn't seem natural in any way at all.

> D13: But the deaths, they're always terrible...They're just slow, agonizing deaths. You just lose your dignity, like piece by piece...your soul is just totally, you know, bared at the end...like you really have nothing left.

> D6: And they call it the slim man's disease...and they do...they just go awful, just dreadful looking. Talk about...those poor prisoners in...Auschwitz...these are equal, if more so. All they have on them when they die is skin and bone.Their tissues have gone, their muscles have gone. The body just feeds--eats them, because they're not eating...They don't die peacefully, they don't die with dignity, they have a horrendous death. It is just terrible.

> D5: I knew that I would be dealing with young dying men. I don't think I ever imagined, though, the kind of death that some of them--you know, some of them drag on for so long and they're suffering and they have a lot of pain...when I first started, I don't think I ever thought that it was going to be that bad.

4. The Stigma of AIDS

The physical horror of dying from AIDS is compounded by the social stigma attached to the disease. Several nurses perceive a threat of stigma to themselves and their families should they develop AIDS. Moreover, nurses who care for patients witness the effects of stigma that their patients and families encounter from others. The perception that rejection is possible even by health care professionals led more than one respondent to say that should they get AIDS, they would want to be cared for on the unit in which they presently work because "everyone there is so accepting". One nurse suggested that it may be the fear of being "ostracized", along with the fatal nature of the disease, that compels some nurses to refuse to care for PWAs. Stigma is perceived to exist regardless of how the patient acquired the disease and reflects not only a fear of physical contagion but also a concern about "social contamination" (Lessor & Jurich, 1986). Nurses describe incidents where patients' families work to convince others that the patient did not acquire the disease through sexual means or drug abuse:

> D10: It's a little bit different when you have the female and when you have the hemophiliac...the families are fighting in some respect to let people know that this was not received sexually...if it was a blood transfusion, it seems to be more acceptable than if she was a prostitute.

In short, developing AIDS means laying one's morality on the table for others to judge.

The theme of rejection and stigma was most strongly expressed by a nurse who sustained a needlestick injury. For D1, the threat included rejection by her family and friends, as well as the potential ostracism resulting from a "courtesy stigma" (Goffman, 1963):

> If I was HIV positive I know I can't cope. What'll I do with myself? I have two children; I'm planning on getting married. No one will want me. I felt dirty and infected...Well, if I can die, but my children will have to know...I wouldn't want them to know. If anyone was to find out, then the children would be treated bad...I wouldn't even want them to know.

That fear of rejection may even override the fear of dying is reflected in her "bargaining" strategy:

> And then you say, please if anything, I'd rather have cancer. Just don't let it be AIDS 'cause then no one will want me, no one will want to be around me, and I really need people.

Perhaps the potential for being stigmatized should they develop AIDS is foreshadowed by the nurses' experiencing others' negative reactions to their caring for PWAs. These reactions are discussed in a subsequent chapter.

The nurses' perceptions of what it is like to die of AIDS underscore how this disease disrupts the normal, "taken-for-granted" assumptions about death. This in itself may be unsettling. With AIDS, death occurs among the young and is often preceded by symptoms not usually associated with young adults: confusion, paralysis, and loss of bodily functions. Moreover, instead of being surrounded by empathic family and friends, patients may be rejected and alone.

B. THREAT TO SIGNIFICANT OTHERS

In addition to the threat to their own lives, nurses recognize the implications that their own exposures may have for their significant others. For some, this involved concern that young children will be left without a caretaker or that family members themselves may contract the disease by virtue of the nurse's exposure. Initially, this concern appears to have included a fear of casual contagion. D4 conveys an uneasiness about casual contagion when nursing her first patient:

> And I remember the first time he hugged me, I almost dropped, thinking, oh my gosh, I can never go home again...because I have a husband and kids of my own, I don't want to take anything home to them.

Similarly, D9's feelings of vulnerability prompted her to take extra precautions to prevent transmission:

> You don't want to bring anything home. If it's anyone infectious I get that feeling that...I'll just double check to be sure, I'll wash my hands...And you know that it's probably not true that you're bringing home anything, but sometimes you think, I've had a splash of secretions on my uniform, and I'm going home, and I wonder if I will give him anything.

Because of the sexual transmission of the disease, nurses who become HIV infected may also infect their partners. D4, who sustained a needlestick injury, perceives that exposure to HIV may be unique in the implications it presents:

> My first thought is my kids because I think, God, now both my husband and I are going to die. I've taken both of us away from them. I thought it's bad enough if one of us die, at least the kids will have the other. But if I killed us both off, then I'd feel really bad.

Concern for family members was an influencing factor for some nurses when choosing to care for PWAs. D4 cites examples of nurses who have refused to care for PWAs because they were single mothers. She suggests that her family constellation also influenced her choice of whether to care for PWAs:

> When I was starting out, I would've never gone to that ward if I hadn't had a husband. You just look after yourself that much more...if you would be a single parent. [If I was a single parent] I'd think I'd want to be in some neat little safe place where nothing was going to happen to me, at least until I've got my kids to the point where they were self-sufficient.

That the family figures in the nurse's acceptance of risk is further suggested by two nurses who did not have children. One stated, "I may feel different when I'm pregnant and have children". Another said, "If I was pregnant, I honestly don't know if I would [work with PWAs]. I'd think twice about it". Moreover, a strong commitment to family goals may intensify the threat to one's own life, as reflected in D7's comments:

> We all know there is no cure for AIDS and I think if I ever had AIDS, there would definitely never be any marriage, any family in my life, which has always been the goal in my life, so I'd be destroyed in a big way.

Further recognition of the threat to significant others is reflected in the finding that all but one nurse indicated that they would inform their sexual partner should they become exposed.

The threat to the nurse's family or significant others is made more salient by the concern that the family members themselves expressed to the nurse. All but four of the nurses experienced concern from their immediate family when they first started caring for patients with AIDS. While some nurses expressed concern over their family's safety, the major demand for nurses in terms of their families was that of assuring their families of minimal threat. The nature and management of the families' concerns will be discussed in a subsequent chapter.

C. THREAT TO PROFESSIONAL SELF-ESTEEM

In addition to, and arising from, the threat to life posed by the risk of contagion is a threat to the nurse's professional self. This threat occurs when the nurses' commitments to professional expectations are thwarted, for example, when the nurses' feelings and actions in response to the risk of contagion are perceived to be divergent from what they ought to feel and how they ought to act. Professional demands or expectations arise from two sources: the broad professional culture inculcated through professional socialization, and the more immediate social context of the institution and the nursing unit. On the other hand, personal demands arise from the nurses' own fears of contagion and/or the demands presented by their social networks, particularly their significant others. The dilemma becomes one of preserving one's image as a professional nurse who is caring and accepting (and even not afraid), while simultaneously dealing with one's own (and perhaps family's) fears of contagion. In short, conflicting pressures arise as the need to care for patients confronts the fear about potential exposure to HIV. Whereas threats to life and health generate feelings of anxiety and fear, threats to professional self-esteem are expressed as guilt and shame.

Of particular interest are the nurses' concerns about how they perceive they ought to feel. These "feeling rules" (Hochschild, 1979) include a belief that nurses should not "feel afraid" and should want to care for patients. Several nurses attribute their own high expectations of how they ought to feel about caring for PWAs to their professional socialization:

> D11: I didn't want to be afraid. I thought I should just be able to dive right in there and just be a trooper and handle it all. I think that comes with training--it tends to do that. You're a nurse, you're supposed to do everything, and know everything and be wonderful.

Similarly, D7 states:

> When I first started I felt that I should be...I don't know if brave is the right word. But not...let it bother me about caring for any particular patient. I felt that I always had to have a brave front...I'm supposed to be the perfect nurse, and it shouldn't bother me to care for [any] person.

D4 suggests that previous experiences may also give rise to unrealistic expectations:

> I thought I could go in there and it was a disease like any other...I'd nursed other people with diseases that were contagious, but...I guess you couldn't die from them...And you felt like you'd let yourself down a bit...I felt...why should I be like this?...I guess it's just your high expectations of yourself...you're going to go out there and you're going to cure the world...and you're going to be just a supernurse.

These statements reflect Hochschild's (1979) observation that we often invest what we should feel with "idealization". Individuals compare and measure their private experience against an idealized expectation.

The nurses' perceptions of the expectations of the hospital and nursing unit also influence their professional expectations. These perceptions of how they should feel and act are influenced both by the "formal" role demands and also by the "informal" expectations suggested by the behavior observed on the unit. Others' behavior becomes a standard with which to compare one's own. As one nurse remarked, "I thought they accepted it, so that I should've too." Another said that while observing other nurses, "If this person can do it, then why can't I?" The nurses' perceptions of others on the unit will be discussed in greater depth in a subsequent chapter and is briefly mentioned here only to acknowledge that professional demands are influenced not only by the broader professional culture but also by the more immediate social situation in which the nurse practices.

In addition to, or perhaps underlying, a "professional" expectation to "feel unafraid", was the perceived demand to believe the scientific evidence about the routes of HIV transmission. In talking about her first patient care experiences, D4 states how her discrepant feelings from this expectation created a feeling of guilt:

> It was scary...and yet you felt guilty at the same time because you knew better...by the books. But yet your heart doesn't tell you that, like right at first. At first, it was a mixture of fear and then feeling bad because you were afraid.

Although nurses eventually came to accept that fear is universal and even acceptable, there appeared to be an expectation that fear should not be communicated to the patients. This required a management of the behavioral expression of feelings (Goffman, 1959; Hochschild, 1979). Moreover, nurses may be particularly compelled to carry out this imperative because of their perceptions of the stigma PWAs already suffer at the hands of others.

Fears of contagion also led to feelings of not wanting to care for PWAs, or at the very least, not "liking" it. This was perceived as dissonant with feelings of professional obligation and commitment. D13, who most clearly expressed such a "professional-personal" conflict, describes her feelings:

> It goes against nursing, you're supposed to care for these people and look after them and be supportive. And it's almost like you feel guilty for thinking "I'm not really

> sure if I really like looking after this person"...To be totally honest, I actually feel quite ashamed that I feel that way...I feel that I shouldn't be thinking like that.

She summarizes the conflict such feelings create:

> That just goes back to me really having mixed feelings, like you know the threat is there, but yet you have to give them the best care possible...I have conflicting feelings...Like I think I shouldn't feel this way but I do, but I have to do my job.

Such conflict not only creates feelings of shame, which need to be managed, but also may be perceived as translating into behaviors that influence patient care. D1 suggests that fear and subsequent feelings of resentment to PWAs not only resulted in emotional discomfort for her but also led to less than optimal nursing care for the patient. This awareness may heighten distress:

> And then you have to deal with yourself because you're even adding to their [PWAs] problem 'cause you're not being--caring as much as you could--supportive. It's just my fear.

These last statements are instructive in pointing out that nurses believe that patients not only deserve to have care but a certain *quality* of care, which can only be provided by a nurse who is accepting and comfortable. It is this perception that creates conflict for some nurses and seems to be an important factor influencing nurses' perceptions of whether or not they should have the right to refuse to care for PWAs. In short, the "professional-personal" conflict goes beyond the decision of whether or not to care for patients. More significantly, it involves questions about the acceptance and appropriateness of feelings and behaviors. These questions can influence the nurse's emotional comfort as well as the quality of care delivered. When nurses assess their feelings to be inappropriate to the situation, they must manage these "unwanted" emotions. This "emotional management" will be discussed in a later chapter.

In summary, the stakes involved in caring for patients are high. They involve commitment in areas that are significant to most nurses: their life, their family, and their work. The significance of these commitments contributes to the nurses' vulnerability to threat. Vulnerability to threat, however, is also influenced by the nurses' perceptions of resources to meet the demands posed by the risk (Lazarus & Folkman, 1984). I now turn to a discussion of the nurses' perceptions of their ability to meet these demands.

D. UNCERTAINTY ABOUT AIDS

The nurses' initial concerns about caring for PWAs revolved around protecting themselves from HIV exposure. A major theme underlying their initial fears was a feeling of uncertainty about the nature of the risk. The dimensions of uncertainty that generated concern included uncertainty about the disease and its transmission ("Who and what is dangerous" and "Can I be sure"), and the related uncertainty about the means of protection ("Can I protect myself"). These uncertainties suggest that nurses' initial fears were derived from a perception of decreased control to cope with the demands posed by the risk.

1. Who and What is Dangerous?

Uncertainty regarding the mode of transmission was expressed by most nurses. Questions revolved around what body fluids are infectious, how is the virus spread, how long does it live, and so on. Many nurses attributed their anxiety to their own lack of knowledge about the disease. This is analagous to Fox's (1957) "uncertainty about what one does not know", an incomplete or imperfect mastery of available knowledge:

> D4: At first like I was almost afraid to touch them...It was an unreasonable fear, but not knowing enough about it at the time when I went into it didn't help...I think at that time I probably still thought you could get it from a door knob type thing. When I first started I was worried that I might [get it] if they coughed on me.
>
> D5: I just thought I was going to get AIDS if I touched the person or if I made some just casual contact. I just was scared--it was really scary. I guess I just wasn't confident, I didn't know enough about the disease when I first started there.
>
> D8: I didn't know what it was, I didn't know like how you got it...or...what are they doing for it, what are we supposed to do.
>
> D11: I had no idea what to expect...in the beginning...and still not knowing and understanding how the virus was transmitted.

2. Can I Be Sure?

In addition to feeling inadequate about their own knowledge level, some nurses expressed anxiety about the adequacy of scientific knowledge about AIDS and how to respond to incomplete and changing knowledge as they attempt to define risk. This "medical uncertainty" (Fox, 1957) reflects limitations in the current medical knowledge, rather than the nurses' mastery of available knowledge. The nurses' particular concern related to HIV transmission and its progression. The ambiguous incubation period may lead to an uncertainty about the transmission of the virus because while there may be some evidence that others have not acquired HIV infection or developed AIDS, it may be difficult to say with any certainty that they may not *yet* do so. In short, the delayed consequences of exposure increase the uncertainty of the knowledge itself. For one nurse, medical uncertainty continued to be her greatest source of anxiety, in spite of the information she possessed:

> D13: When I graduated from nursing school was when they started putting it in the curriculum. And actually, I felt quite informed about the modes of transmission and just reading other articles, but there's still the big question mark in the back of your mind. I've probably said that a million times during this conversation [laughs]...They're still not really sure how its transmitted...There's so much stuff they don't know about it, and they really just can't assume that we're safe.

D6 echoes the lack of definitive reassurance about the disease:

> My first fears, good Lord, now, I'm very close here--am I going to get it? And I know the high risks. But that fear was still there, and I thought, I'm not quite sure yet, it's not written in black and white that I'm not going to get it. It's not written in black and white that it's not airborne...I had quite a little battle with myself.

An initial desire for "guarantees" was expressed by others. D2 recounts the concerns expressed to her by others in the hospital as she attempted to allay their fears:

> [They said] Prove to me that it's okay to look after these patients; prove to me that the virus doesn't live on desk tops for long periods of time, and prove to me that it's not in their saliva...how do you know it's not in the air?

3. Can I Protect Myself?

Arising from uncertainty about the modes of transmission was the initial concern voiced by most nurses about how to best protect themselves against exposure. This involved not only knowledge about what precautions to take but also a belief in one's competence to perform capably and safely:

> D8: I didn't know what I was supposed to do. I didn't know if I was supposed to go in with gloves, mask, gown. What am I supposed to say to this person? What am I going to do?

> D5: My first experience with an AIDS patient was really scary 'cause I wasn't sure of myself, I wasn't sure if I was supposed to be wearing gloves, if I was supposed to be wearing a mask...I needed to know what to do, and what not to do when it came to handling their body fluids...when to wear gloves and if it was okay to touch them when I was taking a temperature.

For D2, uncertainty about her level of skill was the most important dimension of her initial feelings of fear:

> It was just to make sure that I wasn't...doing any practices that I shouldn't be. It's not necessarily fear that it would be transmitted some other way...I was comfortable very soon with the fact that they knew how it was transmitted and that there weren't other ways... [it's] your competency with the procedures.

Even when nurses were generally aware of how the virus could be transmitted, there were nuances which needed to be addressed. Moreover, these specific concerns about precautions were not always apparent until nurses had begun caring for patients. D6 comments on her uncertain feelings:

> You really weren't 100% sure how you could not get it...If I go into the room and just sit down and talk with him, hold his hand, am I going to get infected? What if I got an open area on my fingers and they cough and then they hold my hand again. Little very small things like this that you weren't very, very, sure of at the beginning.

E. FACTORS INFLUENCING UNCERTAINTY

Nurses appraise the risk of acquiring HIV infection and AIDS as a threat. This threat has been discussed in terms of the commitments that are at stake as well as the uncertainties that must be managed. Additionally, various factors about the disease itself were discussed as influencing nurses' appraisal: its fatal and aversive nature, its prevalence among the young, the scientific uncertainty surrounding its course and transmission, and the stigma it elicits. In addition to these factors, nurses' feelings of uncertainty were influenced by situational factors that can be categorized into two general types: (a) the novelty of the situation, and (b) the predictability of the situation.

1. The Novelty of the Situation

Novel situations may be threatening because their significance is unclear, or because they may elicit an awareness of coping deficits (Lazarus & Folkman, 1984). A dominant theme underlying the nurses' fear of contagion was a "fear of the unknown", attributed by them to inadequate formal educational preparation and lack of experience caring for persons with AIDS. Few nurses had received information about AIDS in their basic educational preparation, largely because of the recency of the disease:

> D11: It's sort of like that's off in the States somewhere, it doesn't happen here. Or if it is, it's sort of like, well, you wouldn't come in contact with it because there are so few numbers...It'll happen to the next guy, not to me...I had no idea what to expect in the beginning.

For some nurses, caring for their first PWA was a new experience for everyone in the hospital. D3 explains:

> This is like doing your first open heart, only then they're all prepared for it, they've done everything. But you don't know that you're going to have someone walk into the hospital and have that as their diagnosis, and suddenly they're right in your ward. We had no preparation for it, mentally or emotionally, or knowledgeably. We just weren't prepared for it.

On the other hand, little knowledge about AIDS may have actually decreased the fears of those nurses who cared for the first PWA in their institution because they were unaware of the seriousness of the situation. D3's comments are typical of those few nurses who were involved very early on in the AIDS epidemic:

> I can't detect as I think back through it if I had that much fear, because I don't think that we knew enough about it to even be that afraid.

This supports Lazarus and Folkman's (1984) contention that a completely novel situation will result in an appraisal of threat only if some aspect of it previously has been connected with harm. For most nurses, however, their first experience with PWAs was not completely novel. While they may have been inadequately prepared in terms of how to protect themselves from exposure, the media coverage about AIDS made vivid certain threatening aspects of the AIDS epidemic. This may have fueled the initial fear of contagion. D8 summarizes the effect of the media:

> And it's so well publicized, like it had everybody sort of frightened to death, and then I personally get to look after one. It's just the unknown and just so much as to what's going on with it...Every magazine you picked up and every little thing you read was...how many more patients have been getting this statistic-wise, and how many more have been dying and...what they're coming up with and...what they're not coming up with.

The media also may have increased the scientific uncertainty surrounding the disease because they tend to report what often appears to others to be conflicting information. Several nurses comment on the effects of the media in presenting "erroneous" information, particularly in terms of the modes of transmission and the isolation of the virus in various body fluids. On the other hand, the media was also perceived as a major source of "useful" information.

Several nurses point out that the "anticipation" of caring for PWAs may be worse than the actual situation, thereby suggesting that appraisal is based on both fear of the unknown and the evoking of previous experiences or information. D7 explains:

> I think when we have nurses come to the unit who have never worked with AIDS patients or student nurses, you can tell they're scared. But if you show them a patient and explain the simple precautions to them, they often say, well, it's not so bad, it's not what I thought it would be. So your imagination can really run away with you.

Previous nursing experience with other than HIV-infected patients also may influence the uncertainties nurses experienced when first caring for PWAs. For example, caring for patients that require isolation technique may decrease the novelty of the situation by making some aspects of care more familiar. D10, one of the few nurses who did not admit to intense feelings of fear, explains how previous experience with isolation technique increased her comfort level:

> [Caring for a PWA] wasn't a problem, it just fit into the stream of things...We had a lot of things in place that made it very comfortable to take care of this person. It was something new, but the precautions were the same for someone with hepatitis. He was coughing, so from time to time we may have worn a mask...But it was a way of life...you did this for everybody.

This "routinized" way of dealing with threat may have increased a feeling of control over an otherwise uncertain situation. In contrast, D4 explains that her general lack of experience increased her feelings of inadequacy and fear:

> I had just come back as a refresher after twelve years. So I was terrified about everything. Not just AIDS patients. Everything. And I had never worked Infectious Diseases before. So it was a complete change in that regard, too.

Similarly, D11, a new graduate, comments, "It was like I'm still trying to figure out what I'm supposed to be doing as a nurse". These statements suggest that a "build up of demands" in situations requiring the execution of new skills may increase nurses' feelings of discomfort in coping with the risk of contagion. Decreased confidence in knowledge and skills may diminish a sense of control over the situation.

2. The Unpredictability of the Situation

While the novelty of the situation created much anxiety initially, later, other characteristics of the situation also were perceived to increase risk because of the uncertainty they present, along with a perceived lessening of control. Unpredictable situations were perceived to pose the greatest risk. Such situations may take several forms. One of the most frequently mentioned sources of unpredictability was the type of patient. For example, several nurses commented on the problems presented by patients who are confused, which may be a manifestation of the disease process. D2 describes how this uncertain situation decreases feelings of control and creates fear:

> There was only one time I can remember that I was really scared and thought there was probably no way that we could adequately protect ourselves and that was with someone who was very confused and disoriented because he was hypoxic...So the doctor was trying to do blood gases on him, and there [were] about five or six of us holding the patient so he could take the blood gases--as he did it, the patient was still so restless that after he had the needle in, and trying to keep it there, it was really unsafe because the patient was jiggling and the potential for it to have gone into any one of us was really great because it was such a difficult situation to manage. And so we all wore our gloves and things, but we could've gotten a needlestick very easily, even though we had gloves and things on.

D1 also comments on the perceived lack of control to prevent exposure when caring for confused patients:

> He's confused now, he's got metastasis to the brain as well now, and those are the ones I really worry about because they don't know what they're doing sometimes, and they pull their IVs out. You wonder if they're going to grab you, bite you, scratch you...In fact he did hit...one of the nurses the other day...not aware, just anger...There's nothing you can do.

That the patient's "lifestyle" may combine with the manifestations of the disease to produce dangerous and "out of control" situations is suggested by D7:

> One thing that sort of frightens me [are] the occasional street people that we get...people who just sort of live on the street. We do have one patient right now who's made his life through selling drugs, prostitution...that's just his way of life. And he has a really bad temper, and I am scared for when he becomes more confused or whatever. That maybe he'll try to stab us with his needle...He was at another hospital last year and was spitting on people...So I don't know what we would even do if one of those patients got violent on us.

Caring for psychiatric patients and caring for those rare patients who "intentionally" try to expose the nurses are also perceived as particularly dangerous situations because of their unpredictability. [illegible] recalls how she received a cutaneous exposure from such a patient:

> I think he deliberately sprayed me when I was cleaning out his bedpan, he came sneaking in the bathroom behind me and deliberately turned the hose up so it sprayed all over me...I never knew from one time to the next whether he would try to bite you or spit at you...I had trouble dealing with it.

In addition to the dangers posed by patients who are confused, patients who have lost control of their physical bodily functions also are viewed as presenting more risk because of their unpredictable expulsion of body fluids. D1 relates her experience with such a patient:

> This lady had full-blown AIDS. She had brain dementia, she had diarrhea so bad, she had projectile vomiting, so we always protected ourselves with this lady 'cause she was a hazard in the fact that we could contract [HIV] if we have open sores or anything. Because you could sit her up and all of a sudden she would just have emesis everywhere. And so you really had to be careful--wear goggles. And she was so confused that she'd pull her IV out, she'd be bleeding all over...she would start walking down the hall with blood dripping.

Very ill patients present an increased risk of exposure to body fluids because of the hands-on care they require as well as their inability to control their bodily functions. One nurse also suggests that he would be more concerned about getting exposed to a patient with end-stage illness because "the virus is basically everywhere, in every cell and tissue".

A combination of the unknown and the unpredictable may pose particular concern if the nurse is required to respond in emergency situations without adequate protection. This may occur in those situations when patients are admitted for investigation, or to the intensive care unit. D9 elaborates on how these factors influence her risk appraisal and her choice to work in the intensive care unit:

> There's a lot of patients there that you really don't know. They're so acutely ill and you've got to respond. And you don't have time often to put a mask on...The AIDS population is growing...we see them repeatedly coming in very ill...that you know that sometimes someone's not going to know what they have and they're going to take them to ICU, suspecting it might be something else.

In addition to the risk posed by the type of patients, there is risk inherent in the situations presented by others' mistakes. While this was not a specific concern voiced by many nurses, it is interesting to note that two needlestick exposures occurred due to others' mistakes. One nurse who sustained such an injury found herself becoming far more vigilant in her assessments of potential risk situations created by others, "watching what's in the linen...making sure I assess what [others] have done, and where her needle is hanging on the pole".

In sum, while nurses described a variety of situations that they perceived to be "high risk", there is a common theme: Nurses perceive themselves to be at greater risk in those situations where they have less control over potential exposure to the body fluids that they have defined as dangerous.

F. SUMMARY

In concluding this discussion of risk perception, it may be said that caring for patients with a transmissible disease presents a threat for nurses' commitments in three important areas: their life and health, their significant others, and their professional self-esteem. Nurses' vulnerability to threat is heightened by the similarity they perceive with their patients' situations. The degree of threat is also influenced by the nurses' perceptions of their abilities to meet the demands posed by risk. Initially, threat was intensified by uncertainties in terms of the nurses' own knowledge and skills, brought about primarily by the "novelty of the situation". The scientific uncertainty surrounding the disease and the unpredictability of situations add to this initial uncertainty. These latter characteristics continue to present demands, even when initial fears subside. That is, nurses continue to address the questions "how can I protect myself?" and "how can I be sure?" The uncertainty about the nature of risk and how to protect themselves from it creates demands to make risk manageable by achieving a sense of control over exposure. The manner in which nurses cope with these demands is the focus of the next chapter.

V. MAKING RISK MANAGEABLE: REDUCING RISK OF EXPOSURE

As I have pointed out in the last chapter, uncertainty about the risk of contagion arises from the ambiguity regarding the possibility of exposure as well as from the nurses' uncertainty about what to do to protect themselves from possible exposure. An ambiguous event is a situational threat that activates coping processes to resolve the ambiguity (Lazarus & Folkman, 1984). Nurses' efforts to prevent exposure are directed toward defining the risk and achieving control over risk. Several strategies are employed to reach these goals. Nurses are vigilant in seeking out knowledge to decrease uncertainties about what will put them at risk and how to protect themselves from exposure. They assess situations for potential exposure and they engage in actions that will protect them from contact with blood and body fluids. In this section, I will discuss these strategies and the factors that influence their use.

A. BECOMING INFORMED

One of the basic strategies to reduce uncertainty is seeking out knowledge and acting on it (Mishel, 1980). Crawford (1974) maintains that uncertainty and importance combine in an additive manner to determine the instigation of information-seeking behavior. Given the nurses' perceptions of the seriousness of the consequences of exposure, one would expect that becoming informed would be a major coping strategy. Indeed, in this study, all of the nurses spoke of the importance of knowledge in decreasing their fear of contagion. They actively sought information in an effort to more clearly define the risk in terms of the mode of HIV transmission and how to protect themselves. Becoming informed allowed them to reinterpret the aversiveness of the risk by making it more comprehensible and therefore more manageable. The sources of their information were variable, ranging from professional sources (physicians, coworkers, medical and nursing journals) to information targeted to the general public (media). The following comments reflect the variety of sources used and their perceived influence in decreasing fear:

> D3: I went to that first workshop...we had the top men from Toronto come up and address it, and about three famous people in Canada that knew everything there was to know about it at that time...I learned a lot then...The Journal [CBC News] used

> to do documentaries on it frequently...and so as you gained understanding of it, then you felt more comfortable.

> D4: We did have inservices through the hospital. Our head nurse is very good...And the doctors...I read a lot about it, all the research...I would read articles where there were studies on needle pricks and how many people actually got the AIDS even though they had pricked themselves with an infected patient's needle.

> D5: When I first started there, I didn't know a whole lot about it...I think the first thing that I did was get educated. Very soon after I started...I attended an AIDS conference, and I found that really helpful...that brought me home a lot of literature.

D6 describes her feelings after her first experience with an AIDS patient:

> And I thought about it when I went home that night, and I thought, gosh, I've got to know more. I must learn more. Really must. So I did, I got materials and I attended the AIDS conferences and...anything that was going and I could attend, I did...and get a hold of all the literature I could get hold of, and read it...I think I tempered my own fear about getting it, by attending the AIDS conference and by reading. I read on the subject, and I was quite determined that I would find out just exactly...how, if I am exposed to the HIV patients--what risk am I at? So I made it my business to find out. And now I know.

She summarizes her motives to learn, the means to achieve them and the consequences she experiences:

> It takes weeks and months for you to be very comfortable. You become this way with...educating yourself, reading about it, talking about it with your peers, attending lectures, seminars anything that you can hear. Anything that is going to help you, you learn it, you are eager to learn. I know I was. I wanted to know all about it. The more you seem to know about it, the more you read about it, the more you learn about it and the more you feel comfortable with it, the less afraid you are. You are not afraid to go in the room. The bell rings, you are not afraid to go in. You're not gowned, gloved, masked. You know exactly what the diagnosis is...You are not afraid to just go in. You just say "what can we do for you?" and do it.

D13 also provides a breadth of sources in answer to the question of where she received her information:

> Nursing magazines. I read one called *Nursing '89*. And they have AIDS updates; like they devote a couple of pages to it every month. And also *Canadian Nurse*. I'd say probably every third issue or so, they've got something on AIDS. And not too long ago they also had a book that came out...And also my talk shows...and newspapers. I don't read medical journals.

For many nurses, coworkers on the unit were an important source of information in reducing uncertainty about how to protect themselves. While initially some nurses may have felt uneasy about revealing their inadequacies, once they overcame their initial hesitancy they found their coworkers very helpful. D5 explains the "informational support" (House, 1981) she received from the unit:

> I think the best thing was the people who work on the unit have a great understanding of the disease and are really willing and helpful...[Initially] I thought what if I asked this question, maybe the staff will think that's a really dumb question...but I asked one question and no one laughed at me, then it enabled me to ask another question...the staff was always willing to provide information.

D6 also found the staff on her unit "extremely supportive and ready to answer any questions...I asked many, many questions. Do I always have to gown? Do I always have to glove? And when do I have to wear all this stuff? " She also emphasizes the support of her unit manager in terms of being a credible source of information as well as in supporting her with opportunities to seek information from outside sources.

The nature of the information provided increased the nurses' understanding of the modes of transmission and concomitantly how to protect themselves from exposure. For many, this involved a narrowing down of the modes of transmission. In particular, it ruled out casual contagion due to respiratory transmission and from touching articles with which patients may have been in contact. This "narrowing down of the risk" decreased the nurses' perceptions of the likelihood of becoming exposed to HIV. D5's statement reflects how increased information reduced ambiguity, thereby helping her to more accurately define and control risk:

> With the education...what you're to do and what not to do, just knowing that the virus has been detected in saliva, and blood and urine and stool, so in that respect you know that...so to me it's straight-cut, if there's urine, you put gloves on; it there's stool, you put gloves on.

Nurses also discussed the importance of knowledge in disrupting the "familiar" preconceptions they (and the public) have about infectious diseases of viral transmission. Previous "schemas" associate viruses with more casual transmission, including the respiratory route. While there is suggestion that knowledge alone may not be sufficient to dispel these preconceptions, knowledge appears to be a necessary factor in helping nurses to eventually feel safe. D4 relates how abstract knowledge about viruses in general helped her to understand

HIV transmission:

> Then you can grasp the idea of viruses and know it can't do this but it can do that, where people who haven't had that education...can't understand...they just think of a cold as a virus and you get it in the air, you can catch it from one person to another, why can't you catch this virus like that?...They can't grasp the difference.

In addition to increasing their understanding of "what" is dangerous, much of the knowledge nurses obtained also provided reassurance in terms of how difficult it is to become infected even in the event of exposure. In response to the question of what information was useful, most nurses emphasized factors related to the low infectivity of HIV, how weak the virus is, and how much concentration is required to effect harm. This information appeared to decrease their perceptions of the "seriousness" of being exposed. D4's comment is typical:

> And as you learn more, you realize that this is not a strong virus, that this is not something that you're just going to get...one little tiny virus isn't going to get you...you can't get it that easy...It's just not going to jump out and get you.

The importance of this reassuring information is underlined by D1, who states that *not* knowing this information resulted in undue stress when she sustained a needlestick injury:

> And as much research I did never said about the concentration or how weak the virus really was. Like I think those are really important for inservice people to tell. How weak the virus is, just how much of a contact you need, and how much exposure do you really need.

While all nurses spoke of the importance of information in dispelling fear, new information about the modes of transmission also may increase anxiety. This may occur when the information supports the assertion of medical uncertainty. D13 elaborates:

> I just heard via the grapevine from a girlfriend of mine who's in nursing that they've now diagnosed two people who've had AIDS transmitted via saliva. Now I don't know what literature she got this from, but I think that's just it, that there's so much stuff they don't know about it, and they really just can't assume that we're safe. Actually just up until I heard about those two kids with saliva I was feeling really nice and content about it and now, it's like they still don't know. They just don't know.

This statement points out that information is most useful in dispelling fear when it increases a sense of control. Information that conflicts with previous information may increase the ambiguity of what is already perceived as uncertain. For the above nurse, information about a "new" mode of transmission merely substantiated her belief that "they still don't know". For her, information did not help to more narrowly define the risk, but instead widened the possibility of exposure.

Interestingly, most nurses come to believe in the scientific information presented. They acknowledge the changing nature of knowledge but also appear to accept it. D2 suggests that her certainty about the transmission of HIV results from the "appropriateness" of resources consulted:

> If you're looking at reliable sources, there is basically no variation or conflicting information...One day I clipped an article out of the [local paper] that was totally erroneous. If you're looking at those kind of sources, you might get conflicting information, or you might get something that's in error or that doesn't make sense.

Another nurse appears to have made a more conscious effort to believe the scientific information about AIDS, as reflected by her comment, "Do I believe what they say or don't I believe what they say? And I guess I chose to believe what they said".

In sum, overall, most nurses believe that education is paramount in overcoming fear. This is reflected in such comments as "Your best armour in this, your best security is knowledge, education, and awareness", and "I can't stress education enough".

The importance of education in dispelling fear of contagion has been well documented (see Chapter II). Education appears to be particularly important when nurses first begin caring for PWAs because it decreases the uncertainty inherent in novel situations, particularly in terms of the nurses' mastery of the available knowledge.

B. MONITORING FOR POTENTIAL EXPOSURE

A major behavioral consequence of fear is a strong need for vigilance (Janis, 1967). In their efforts to prevent exposures nurses monitor their environment for situations that could put them at risk. Initially, their fear of contagion was accompanied by a "heightened vigilance" evident in both the cognitive processes of planning and attention, and in behaviors to prevent and possibly detect exposure (Janis, 1967). Adopting a "vigilant set" involves cognitive and action strategies, including scanning the environment for signs of danger, attending to information pertinent to danger, and increasing activity oriented toward avoiding the danger (Janis, 1967). A distinguishing feature of this heightened vigilance is its all-encompassing "conscious" nature. D2 explains how she evaluates her own actions to detect danger:

> When I went in to look after patients, I really found myself thinking through absolutely everything, like I had to check and make sure that if I touched something it was okay. I was just going over the principles and how it was transmitted in my mind all the time because I wasn't comfortable with it...you had to reexamine everything to make sure you hadn't done anything that was potentially going to cause you to get the infection.

Similarly, D11 describes the deliberate nature of evaluating risk:

> Am I doing the right thing--am I taking the right precautions. I'd be thinking twice about it...more conscious of what I was doing rather than just walking into a patient's room and just going about my business...It was my conscious decision or thinking when I was taking care of the patient to be careful...At the beginning, I guess in the back of your mind you're more conscious of it. If you're in contact with them...am I touching anything I shouldn't be touching.

In addition to monitoring their own actions, nurses also evaluate situations for the possibility of risk. Initially, they perceived a broader range of danger and tended to focus on "worst case scenarios". For example, D5's statements reflect her concern for possibilities versus probabilities as she speculates on all possible (and seemingly "impossible" modes of transmission): "Do the gloves not have holes? What if a trace gets in? What if I have a cut? What if I inhale?" This is in keeping with Janis'(1967) assertion that in a heightened vigilant state brought about by increased threat, individuals will consider "loopholes" in recommended practices and more critically evaluate them to see if they offer sufficient protection. As their knowledge increases, nurses "narrow down the risk", making evaluation more manageable. D2 explains how increased certainty about what is dangerous led to less pervasive monitoring:

> At first, you go in the rooms and you would think, should I touch this with a glove on? And now you don't even think about it because you know it has to come fresh from the patient, it has to be in the blood or a body fluid that's significant and I think we're really careful about all these things...If I had a needle that I knew had blood in it, or they had done a lumbar puncture, I would be extra careful in those situations because I know that those are the times where I'm at risk, and those are the situations in which I'm going to be touching the things very carefully. And not taking any chances...I know what times [I am] at risk, and I try to be extra careful at those times.

She goes on to explain that while she has less fear of exposure from casual contact, she has become more careful of exposure to blood and body fluids:

> I'm probably more fastidious about anything that is likely to put me in contact with blood and body fluids...but I don't even think about the casual things...Like to put a patient in the tub bath....I'm much more relaxed about that kind of stuff.

D9 also perceives less uncertainty in the manner of exposure and suggests that this may lead to less monitoring of risk and less "thinking about it":

> Whereas before I might've thought that...while walking in [the room] that one thing could happen to me and I'll get this. Whereas now I'll just go in the room and...I'm going to talk to him about something today. I won't even think about getting AIDS. But whereas before my thought process would be I'm going in to talk to this patient about something and I might get AIDS because he might...[do] something.

Such a "discriminatory" approach to danger, manifested by becoming increasingly responsive to sources of "real" danger and less fearful of cues that could safely be disregarded, has been observed in other situations where individuals are exposed to danger (e.g., Epstein & Fenz, 1965; Janis, 1969/1982).

In addition to being vigilant in evaluating her own actions, D1 is also careful to assess situations that could put her at risk for accidental exposure due to others' mistakes. After receiving a needlestick injury due to another nurse's actions, she has become particularly concerned about protecting herself from such errors and perceives less control over such situations:

> I'm sure you're careful with your own self...it's the faults of others. That's what you have to watch for...I am in control of myself. I am very cautious, so I feel safe. If I wasn't always thinking all the time, all day, for the twelve-hour shift, about people coming and going, watching what's in the linen, watching what this nurse is doing, or that nurse, or going in a room to do something and making sure I assess what she's done and where her needle is hanging on the pole, and this and that. If I didn't take the precaution or the time to just stand back and say, okay, well that doesn't have a needle on it, so go get your forceps or whatever. If I just walked in and started grabbing stuff, one of these days accidents happen.

Moreover, the degree of vigilance required to prevent "accidental" exposure is increased by the workplace demands. D1 continues:

> And sometimes you're so busy...you're running around and you bump into people...I always watch around corners and stuff because people come running around and you

> never know...I always look around before I walk out of the room 'cause someone could be coming in and you're walking out [with a forcep in your hand]...Sometimes in the middle of the hallway you'll heplock somebody. A nurse--you'll see her flushing his heplock 'cause he's in a hurry for the hockey game, and he comes out--can you do this for me and they do it and then they're walking over to the counter where we have a needle disposable box. And they're walking with this, 'cause they're not capping it...and I mean what if someone comes running out of a room with something else and they bump into each other. All these things are in my mind.

As well as monitoring for potentially risky situations, D1 seeks out cues to indicate who may be infectious. She treats with caution those whom she perceives may be engaged in "high-risk" behaviors and thereby maintains some sense of control over an otherwise ambiguous situation. In one sense, she narrows down the risk not only of *what* is infectious, but of *who* is infectious, rather than treating all patients as potentially infected. She describes the degree of her vigilance:

> I'm almost nauseating with my carefulness 'cause people wouldn't notice, but I notice it myself just how I start thinking...If I have anyone...I even isolate more particularly Blacks or Indians or people that are unkept...or might have too many girlfriends showing up and too many guy friends showing up, and I get suspicious of all those things, so I just keep myself clued in...he's got so many girlfriends...he must be having all these affairs...I wouldn't doubt it if he's got...you just get thinking like that after a while 'cause you're scared and we are a high-risk group.

Whereas most nurses relax their vigilance over time, D1's exposure was followed by an increased vigilance. She states it has made her more phobic and likens this to a "near-miss" car accident:

> It's made me a lot more safe now. I think once you've had, any accident, like even a car accident or almost a near-hit, now you watch through the trees, you watch behind cars, you watch everywhere that someone's not going to bolt out in front of you.

Increased vigilance provides a sense of control over uncertain situations. The consequences of this heightened vigilance, however, may put her at a "second-order" risk. She points out that "when you know you have to be careful, you seem to get clumsy...the more nervous I get, the more clumsy I get...the more you know that you have to be careful, the more you get a little bit nervous". Such increased attention to threat-relevant events may lead to both cognitive and behavioral impairment (Janis, 1967). Moreover, heightened vigilance does not allow her to decrease the saliency of risk. This may, in turn, interfere with patient care in that the focus of the nurse-patient interaction remains the nurse, rather than the patient.

C. TAKING PRECAUTIONS

A protocol to prevent transmission of HIV infection in health care settings has been adopted by the institution. These guidelines, termed "Universal Blood and Body Fluid Precautions" are based on the widely-accepted recommendations developed by the US Centers for Disease Control (CDC). They recommend appropriate use of barrier precautions to protect the skin or mucous membrane of HCWs when there is potential contact with blood or specified other body fluids. The recommendations outline the appropriate use of protective wear such as gloves, gowns, eyewear, and masks, and the safe disposal of needles and other sharp instruments to prevent needlestick injuries. The precautions are "universal" because they are to be applied to all patients regardless of the diagnosis or risk of HIV. Although strictly speaking, only certain body fluids are considered potentially infectious for HIV, the agency's written guidelines also emphasize that caution should be exercised with *all* body fluids. This is in keeping with an alternate approach to infection control, the "Body Substance Precautions", that has been adopted in areas of high HIV prevalence (Gerberding, 1989). Gerberding (1988) has advised that while blood is the only body fluid associated with [occupational] HIV transmission, "common sense and concern for preventing transmission of other nosocomial pathogens would dictate that all body fluids and tissue should be considered potentially infectious" (p. 493). In the present study, five nurses did mention that following precautions for all patients protects them from diseases not yet diagnosed or identified. Two of these nurses suggested that PWAs may have other (than HIV) infections that may also be transmissible (e.g., cytomegalovirus). Knowing that someone is HIV infected, however, would preclude treating all body fluids as infectious (in terms of HIV), because the mode of transmission of HIV to HCWs is known to be blood borne.

The adoption of the "universal precautions" can be interpreted as a collective measure to reduce uncertainty by providing greater control over an otherwise ambiguous situation. In essence, adherence to these recommendations provides control over the uncertainty of "what is dangerous", "who is dangerous" and "how can I protect myself?" Moreover, it is a means to "routinize the risk" (Rayner, 1987), thereby making it more manageable. Carrying out precautions becomes a "normal" procedure, part of the nurses' daily practice with all patients. Events that become a normal part of the nurses' activities will be seen as less intrusive, thereby decreasing the saliency of risk. The recommended precautions, particularly as interpreted by the nurses, cast a wide safety net and in many ways cover "possibilities" rather than "probabilities". That is, adherence to these precautions provides for maximum safety by minimizing the likelihood of exposure to even those body fluids that have *not* been implicated in HIV transmission (e.g, urine, saliva, feces). Although the relative risk of acquiring HIV infection through occupational exposure is extremely low, the fatal nature of AIDS may demand that precautions cover theoretical as well as relative risk.

While nurses were found to follow these precautions, their comments convey that there are variations in their use. I will discuss the adjustments nurses as a whole make in the use of precautions over time, followed by a description of the adaptations demanded by specific situational factors. Finally, I will discuss factors which facilitate or impede the individual nurse's use of precautions.

1. Being "Overcautious": Covering All Bases

Initially, most nurses wore more protective clothing and were more cautious than the guidelines indicated. Many attribute this to their feelings of uncertainty about the mode of transmission and how to protect themselves adequately. Under such conditions, they maximize the degree of risk and appear to adopt a "better safe than sorry" approach requiring little discretionary judgment, while covering all potential ways of transmission and all possible ways of protection. Indeed, it appears that much of the overcautious behavior initially occurred because of uncertainty about whether the HIV can be spread via the respiratory route (which is not covered by the recommended precautions) and through touching articles that may have been in contact with body fluids. Several nurses wore masks more frequently in their initial encounters with patients. D1 speaks of the precautions she used when caring for her first

PWA:

> I just thought, what if he coughs on me? Should I wear a mask? I had a mask on, I had gloves on, and a gown. Only because we weren't really prepped on what to do...Now I understand it can't be transmitted through coughing...I just took my own precautions with the mask. I was just scared.

Similarly, other nurses suggest that lack of knowledge led to "overdressing":

> D6: My first patients, I went in gloved, gowned. I made the bed gloved and gowned...because I wasn't sure. I really wasn't sure. I hadn't educated myself enough at that point.

> D5: [When first caring for patients] I wore gloves all the time, and wore gowns when I had direct patient contact. Like if I was giving someone a bedbath, I always wore a gown. When I first started and someone was coughing, I wore a mask.

> D4: At first I was almost afraid to touch them. Like I wanted to put on the gown and mask, and the whole issue.

Others wore more protective clothing because they were unsure about their competency in carrying out procedures that could put them at risk. For example, one nurse wore goggles and a mask to suction a patient, whereas now she would only wear gloves, because now "I know what I'm doing and I'm careful".

While decreased knowledge may have resulted in a decreased sense of control and increased fear, others admit they probably "knew" the mode of transmission but did not "feel" safe. D8 suggests that this may have been due to a fear of the unknown:

> I think I knew that you're not going to get AIDS by walking in to see why this person rang his call bell. But yet I [gloved, gowned, and masked] anyway, just 'cause I wasn't comfortable with the fact that he had AIDS. 'Cause I'd never worked with it. It was an unknown.

A further example of "overcautious" behavior arising from not "feeling" safe is some nurses' reluctance to eat food offered to them by patients. Two nurses describe how they would not accept food in spite of their knowledge that this was not a route of transmission:

> D3: And I'm careful, I still don't take--fruit and candies and things from them. Or if I think they'll be offended and I don't want to hurt them, I will take it out with me but I will throw it away. I won't eat it...I just feel better about it; *in spite of all I know*, I feel better about it. 'Cause their hands--you don't know what they have been in. So I feel safer. [emphasis mine]

> D4: You know you can't get it certain ways, and I say you can't get it certain ways, but I never ate that cake. I maybe take it...and I'll go out of the room and I won't eat it...The odd time I have but it's hard to get down...I sometimes have to choke it down because I really don't want it. And I know better because I know the family's not getting the disease...but there's no way you can stop yourself from feeling like that.

This latter nurse also found herself initially being extra cautious in terms of handwashing:

> I washed my hands compulsively, I'm sure. Well, I know I did--they were red and sore and raw...it didn't matter if I just went in the room for whatever, I'd wash my hands when I left.

D9 provides a further example of overcautious behavior in spite of her knowledge that objective danger is unlikely. Nevertheless, the feelings of vulnerability are "real":

> I oftentimes think...You hear of nurses bringing home bugs sometimes in their nose. Sometimes when you hear of nurses being carriers of staph[ylococcus] or different things in their nose. And that we're immune to it because we're exposed to it--And you know that it's probably not true that you're bringing home anything, but sometimes you think, I've had a splash of secretions on my uniform and I'm going home, and I wonder if I will give him anything. You sometimes are concerned. And so it makes you quickly change when you get in the door, and maybe have a shower.

For still others, overdressing was a way to manage their uncertainty about the efficacy of recommended precautions. This uncertainty stemmed from their concerns about the medical uncertainty surrounding HIV transmission. For example, D1 chose to mask, in spite of her supervisor's advice that it was unnecessary to do so:

> I just wanted to be careful 'cause you at first hear...chances of a needlepoke and converting are nil. And then some time later on you find out that someone has, and then you think, and ten years down the road you're going to find out, yes you could've got it from coughing...things are changing all the time. So, I just wanted to be careful.

D13 also suggests that "there's a lot more uncertainty about it. And because of that you take extra steps to be more cautious".

In sum, "being overcautious" permits nurses maximal safety and protection over perceived uncertainty. It reflects attempts to achieve control over the uncertainty brought about by their own lack of knowledge and skill as well as from the medical uncertainty surrounding HIV infection and AIDS. The high stakes involved may lead nurses to maximize the risk. Moreover, they may employ coping strategies (i.e., protective measures) that they have used previously to protect themselves from infectious diseases, even though these may not be necessary with AIDS. Anxiety about AIDS may lead to hypervigilant decision making (Janis & Mann, 1977; Herek & Glunt, 1988) in which the easiest and most readily available solution is embraced. HIV transmissibility may be equated with other viruses, leading to an overestimation of the danger of transmission by other than the "established" routes. This, combined with the actual uncertainty of the disease and its transmission, may lead to an "overcautious" approach. An interesting aspect of "overprotecting" is the need to achieve a degree of "emotional certainty". It appears that objective knowledge is not enough to instil a feeling of safety, as illustrated by the nurses' inability to accept food in spite of cognitively knowing this is not a means of transmission. This phenomena has also been described by other researchers (Geis & Fuller, 1985; Kelly et al., 1987; Wormser & Joline, 1989). Wormser and Joline found that a significantly greater number of HCWs indicated that they would refuse to eat cookies offered to them by a PWA than would refuse food from a leukemia patient. Moreover, 70% of those who did accept food felt that their emotional responses differed from their intellectual responses, thereby suggesting that factual information is not the only component in such decisions. Elford (1987) also found that medical students could never resolve fully the risk of infection from cutlery and glass used by PWAs. They too knew that it was not a mode of transmission but remained uncomfortable despite being well read and informed. While they thought their uncomfortableness may reflect their own sense of caution in the face of scientific medical uncertainty, Elford and others (eg., Douglas, 1966) suggest instead a more cultural explanation. Do people in the face of uncertainty and potential chaos fall back on earlier beliefs about contagion with resultant sets of rules and rituals to protect themselves? In my study, the nurses' overzealous use of precautions and seemingly "irrational" behaviour perhaps are illustrative of such beliefs.

2. "Being Careful"

A later theme arising from nurses' descriptions of their efforts to prevent exposure is that of "being aware" and "being careful". Nurses lose their fear of casual contagion. For example, they are less afraid to hug patients, bathe them, or just be in contact with them without wearing protective garb. As D4 remarks:

> Like, I'm not afraid to hug anybody anymore. If they need a hug...or if they hug me. And it doesn't bother me at all, and I don't wash right away. Like you felt like before--like take this uniform off at the door and put it in the wash. Like little things like that. And it's dumb, but I don't ever do any of that kind of stuff.

Although for most nurses fears and uncertainties subside, nurses continue to be vigilant in monitoring risk and in following precautions:

> D6: I can't say you ever forget. You don't. You can go in there and be yourself, you can talk and do what you have to do for them but you never forget.
>
> D5: I always think about it. I know that...could very well be contaminated with their blood, and that's a very...dangerous piece of equipment and you dispose of it quickly and you make sure that you don't injure yourself or anyone else...It's something that I think about every injection that I give.
>
> D10: So I wouldn't say that I ever throw caution to the wind, but I think I'm probably always aware.
>
> D4: I'm careful...and very cautious...but I don't have the dread that I did...But you're always careful. If there is body fluids, then I'm extra careful.

Indeed, while nurses may have more narrowly defined what will put them at risk and how to protect themselves, most continue to focus on "theoretical" risk. This included protecting themselves from situations that in all likelihood will not expose them to body fluids and protecting themselves from body fluids that have not been implicated in HIV transmission (even though the virus has been identified there). For example, while D2 acknowledges that the universal precautions apply only to specific body fluids and to those fluids with visible blood, she, nevertheless, protects herself against the possibility that any fluids may contain blood:

> But for some patients there will be blood in their mouth, if they have sores in their mouth, then when you're doing mouthcare, the chances of getting blood are there, even if they're low risk.

She goes on:

> Even if it's low risk, like if you're changing IV tubing chances of blood coming back in the tubing is pretty low, but we still don't take the chance and we really reinforce that people wear gloves for any of that kind of stuff...just absolutely anything that can put you in contact with any of the blood or body fluids you wear gloves...We really drum into people to wear gloves for absolutely everything.

Similarly, D4 states "gloves is the biggest, most definite thing". Indeed, gloving did appear to be the mainstay of protection. All nurses wear gloves when anticipating contact with blood. Moreover, most nurses wear gloves whenever there is a possibility that they may be in contact with any body fluids. For example, all but two said that they wear gloves to empty bedpans and urinals even though there is no evidence that HIV is transmitted via urine. Although there appeared to be more leeway in the wearing of gowns, generally they are worn in those situations where nurses perceive that there is a chance that their uniforms may become soiled with body fluids, particularly blood and excretory fluids. For example, gowns are worn when changing a patient's bed if the patient was incontinent. Masks are worn only in those situations where bodily secretions may be sprayed, such as during invasive procedures or when patients are coughing uncontrollably.

In addition to the use of protective clothing, handwashing is also considered to protect nurses from contamination. For D10, this is even more important than gloving:

> I'm very big on handwashing. I think that's the single most important thing. And making sure that I don't have hangnails and making sure that I don't have lots of cuts.

Similarly, D5 suggests that although there may be variation among nurses when it comes to gloving, "handwashing" conveys protection to all:

> The amount of soap and the amount of handwashing that goes on on our unit is incredible. Like I think no matter if--you've put gloves on in the room or not, we're forever washing our hands.

This latter comment suggests that gloving may add "magical protection just in case"; that handwashing may be sufficient in some instances. The added protection of gloving is also alluded to by a nurse who maintains that because handwashing is the best way to prevent cross-infection, and gloving necessitates handwashing, gloving may provide extra protection.

In addition to wearing protective clothing and conscientious handwashing, nurses also were careful to dispose of sharp instruments appropriately. Indeed, in response to the question of the most likely manner of exposure, all nurses emphasize blood exposure through percutaneous routes--needlestick injuries from intramuscular (IM) injections, heplocks, and drawing blood. They rarely recap needles and use the containers in patients' rooms for immediate disposal. Two nurses did admit to occasionally recapping needles, but in such circumstances they use the "scoop" method to prevent injury (i.e., sliding the needle into a protective cap, rather than using one's hand to recap the needle).

As the above description reveals, nurses are very careful in protecting themselves against exposure. "Being careful", however, is distinguished from their initial "overcautious" approach by a greater certainty about what needs to be done to protect themselves. This increased understanding provides a greater sense of control even though the nurse may use fewer precautions. When nurses do relax their vigilance it is done with the knowledge of what will put them at risk and with greater confidence in their skills to prevent exposure. For example, D6 explains why she may not glove to empty a urinal because "[I am] very much aware of what I'm doing". She safeguards herself by handwashing and "being careful". In comparing her initial vigilance with the present, she states, "In the beginning you are far more careful. Extremely careful. Not that you are blase now, but you know better". This statement suggests that nurses may "feel" safer, because they know what to do and feel competent in carrying it out. D11 puts it this way:

> I think you think about it, but I don't think it's sort of...like oh, my God, what should I do? Should I or shouldn't I? It's not like a...big quandry, where you're able just to do it, and then you're thinking of other things that you need to do at the same time...It's not conscious, a deliberate decisionmaking...it's just something you have to do, it's not...like you're wondering if this is right or if this is wrong, it's just this is what we do...You learn what needs to be done, and then you do it.

This last statement suggests that there is a change in the nature of the vigilance. "Being careful" involves an awareness of risk that is not all-encompassing. Nurses are careful but not preoccupied with risk. This has consequences both for the nurse and the patient care administered. By reducing the saliency of risk, nurses are freer to focus their attention on the patient rather than on themselves. The majority of nurses describe this change in their patient care interaction. Initially, the focus of their interaction is on protecting themselves *from* the patient. Later, their emphasis is on meeting the needs *of* the patient:

> D5: At the beginning, you're dealing with so many of your own emotions, because you're thinking, I might catch AIDS, and what are all the ways that I'd protect myself. And you're thinking a lot more of the patient's physical needs and your emotional needs...as you get more comfortable dealing with their physical need, with having gloves on...you have more time to deal with their emotional needs.

In summary, the precautions cover many contingencies. As is true of many ambiguous situations where people strive for control, nurses appear to resolve the ambiguity by choosing an interpretation and acting on it (Lazarus & Folkman, 1984). In this situation, their interpretation appears to be that all body fluids are potentially harmful. Light (1979) suggests that such "schools of thought" provide guidelines when no clear answers exist.

3. Adapting Precautions

While nurses generally remain very much aware of risk and are careful to follow recommended precautions even after they become more comfortable in caring for PWAs, the "ambiguous" information about the disease itself allows for variation in the interpretation of risk. In fact, the uncertainty of risk analysis in general allows for variations in perceptions (Nelkin & Brown, 1984). This variation was particularly evident in those areas where the uncertainty of knowledge is greatest, that is, concerning questions about the amount of virus that has been detected in body fluids such as urine, saliva, and tears, and whether it constitutes "danger". While HIV has been detected in these body fluids, there is no epidemiological evidence that it has been transmitted by these routes (Health & Welfare, Canada, 1987; Gerberding, 1989; Glasner & Kaslow, 1990). Moreover, the frequency of isolation of the virus from cell-free fluids, such as saliva, urine, and tears, is substantially lower than from blood, which suggests that these fluids may pose less risk (Levy et al., 1985). Nevertheless, a theoretical risk remains. Some nurses focus on "possibilities" (theoretical risk), while others base their actions on "probabilities" (relative risk). For example, D1 gloves for all patient care, including giving a back rub, because she considers perspiration a potential source of infection. On the other hand, D11 has comforted perspiring patients without gloving, because she does not see it as a risk if she follows appropriate handwashing technique. D12 appears very certain about what puts him at risk, which leads him to use fewer precautions:

> People have said in the past that tears and sweat are risk factors. I've had them all over me and they're not. The amount of virus that's ever been able to be cultured in them has been so remotely minute that there is no threat. So why wear gloves when you change a bed? They only get in the way and break anyway.

In addition to the varying interpretations of risk resulting from the uncertainty surrounding the disease itself, "judgment calls" regarding precautions also reflect nurses' perceptions of control over risk situations and their perceptions of patients' needs. Nurses' adaptations of precautions can be categorized into two major types: protecting the nurse and protecting the patient.

a. Protecting the nurse. Nurses adjusted the recommmended precautions to increase their control over situations perceived to pose a risk. This included situations that they knew from experience would expose them to blood and body fluids. For example, while the hospital provides a particular type of glove for protection from body fluids, several nurses commented that because of their experience with torn gloves they now use a more durable glove when they know that they will be in contact with blood (In fact, there is some evidence [Dodds et al., 1988; Matta et al., 1988] that double gloving can reduce accidental blood contact during surgical procedures). Moreover, in spite of the official hospital recommendation that double gloving is not necessary and that sterile gloves should not be used for "routine" protective use, nurses appear to feel free to increase their protection. As D4 explains:

> And if I'm working with their blood and that, I double glove, and I don't wear those silly little plastic gloves, either, that we use because half the time you pull those disposable ones on and they rip. They're really not very safe. So if I actually think I might be working with their blood, then I will get the sterile gloves. And if we're going to get right in there, I'll put two pair on. And I don't hesitate to do it...whatsoever.

In addition to ensuring control over such "anticipated events", nurses also prepare for potential exposure by taking extra precautions in those situations where there is more uncertainty. For example, several nurses remarked that they always carry a pair of gloves in their pocket or may glove prior to entering a room to cope with "unforeseen" events:

> D7: Whenever I go into a room [I wear gloves] because you never know what you can find. So if you always have a pair of gloves you're sort of prepared for anything.

> D1: I think you should wear them--you never know what you're going to find. You never know if you're going to turn them over and they're going to be incontinent, or if they're going to [have] emesis and you need gloves--you haven't got time to run and put them on.

An additional precaution to prevent mucous membrane exposure to eyes was suggested by two nurses who stated that they wear eyeglasses rather than contact lenses to protect themselves when doing diagnostic skin punctures with PWAs.

Nurses may also increase precautions in those situations where they are unfamiliar with the patient. On the other hand, "getting to know the patient" decreases uncertainties in terms of a specific situation as well as caring for patients in general and allows for a more "discretionary" approach to the use of precautions. Acquiring clinical experience, therefore, provides nurses with a source of control over uncertainties. D7 explains:

> But after you've worked with the AIDS patients for a while, you get to know what you need gloves for, what you don't, and things like that...Sometimes if I don't know a patient--let's say I'm bathing him and I don't know if he'll be incontinent, if I don't know if he has open sores on his body, I'll wear gloves or a gown or whatever I feel till I get to know what I need. There's no shame in that.

Similarly, D6 describes how the uncertainties of client response (Light, 1979) may be decreased with experience:

> As time went on...you get to know your patients very well. You know their hygiene, you know the good ones, you know the ones that are not so clean with themselves, so you prepare yourself. If you find that you are going into a room and you know that somebody is sitting up in the bed and they don't use a kleenex if they are going to cough...I would take precautions.

D5 provides a further example of adjusting precautions based on her knowledge of the patient's hygiene:

> If the patient doesn't have very good hygiene, sometimes I'll put a pair of gloves just to go into the room because you don't know what you're touching [that], the patient may have spit at or what he's spit on, [so] I put my gloves on every time I go into the room.

Nurses also increase precautions to protect themselves if their barriers are down. Open cuts and bruises and eczema are perceived to pose particular danger. For example, one nurse who has eczema said that she wears gloves at all times, even when comforting a patient, because she is fearful that patients may have urine on their hands. She double gloves if she has open cuts and may even wrap up her hands and then glove. Other nurses also mentioned that having open areas on their hands would compel them to bandage and glove in situations where they normally would not. For example, one nurse who does not normally glove to empty a urinal said that she would do so in such circumstances.

In sum, nurses adapt precautions to protect themselves from situations that have the potential for exposure. They increase their use of precautions in situations that are "known" to pose a threat. When the situation is more uncertain due to lack of familiarity with the patient, they increase their precautions to protect themselves from unforeseen events.

b. Protecting the patient. Nurses adapt precautions to protect patients from the "risk" of less than empathic care. Their use of precautions was influenced by their perceptions of how the patients view precautions. Some nurses perceive that patients already feel "ostracized" and that indiscriminate use of precautions may symbolize the nurse's rejection of the patient. For these nurses, the use of protective clothing is perceived to interfere with the nurse-patient relationship as it becomes a constraint to carrying on the emotional aspects of their work (Roth, 1957; Lessor & Jurich, 1986). D7's initial feelings of compassion toward the patients and her perceptions of how they may perceive precautions motivated her to use fewer precautions:

> When I started on "888", instead of over isolating myself like a lot of people do, I was worried about making the patients nervous, so I probably wore gloves, etc., a lot less than I do now. There were probably times when I was maybe changing a diaper with urine that I didn't wear gloves. Just 'cause I thought they were thinking that it was because I didn't want to touch them without gloves and that's really not true...I used to think it bothered [them]...that it would offend them or make them feel dirty

> in some way...I wasn't unsafe [in that] I didn't go around touching the blood with my bare hands or anything...[but] I guess it was really important for me at that time to be able to have that flesh-to-flesh contact.

D6, who also feels that patients are sensitive to the use of gloves, is one of the few nurses who does not routinely glove to bath patients because "I want to touch him and comfort him. If I hold his hand, I will not put gloves on". She describes how she ensures that the "human aspect" of caring is conveyed in those situations where gloving is required:

> What I think we mustn't miss out is the human aspect of this. If you are gowned and you are masked and you are gloved and you can see that they are lying there in bed and you are changing them and they just have the most horrendous diarrhea and they are lying down and they are absolutely just lethargic and they are looking at you...I will make a point of taking my gloves off and washing my hands and I will hold them, hold their hand and say "is there anything else I can do for you" and they will always put their hand on top of yours and say, "I'm just going to have a rest now"...I say "just let us know if you have any more diarrhea, just let us come and change you and don't feel too badly about it".

In other situations, patients' immediate needs and the nurse's confidence in her knowledge and skill combine to override the remote possibility of exposure. D10 explains:

> Whether it's in saliva or not, [or] in tears, I'm sure is negligible. And if it means that I'm not going to sit and wipe a crying patient's tears, I would take that risk. I'm not going to leave a patient to cry by themselves because I might become infected, that's not good enough for me. I need more concrete information than that.

Similarly, D12 describes how risk appraisal, structural constraints, and patient concerns influenced his action of applying pressure to a venipuncture site when the patient was bleeding:

> I knew what [my] finger was like, that it's sealed. I'm not at risk. He's bleeding. I'm not going to run down the hall for a two-by-two [gauze], run back and stick it on his arm. I'm not going to turn around, take out a glove that doesn't fit, tear it all to pieces, get another one, just to put a finger on that to stop it bleeding. By the time I do that, he could bleed very significantly. And if I have to ever start doing that, then I'm getting out of nursing. Because that comes first. His life is in jeopardy. No, I do not feel at risk when I do that...If there was an emergency and I had to do it--I empty urinals without gloves.

This nurse, however, was the only one who suggested that contact with blood may not always pose a risk. While he perceives the patient at greater risk than himself, others indicated that they would be at greater risk in such a situation and maintain that the time it takes to put on a pair of gloves that are in the room will not put the patient at risk.

Finally, nurses wear more protective clothing in those situations where they must protect the patient. All nurses pointed out the importance of wearing masks when the nurses themselves have respiratory infections because of the potential for PWAs to contract illnesses due to their immunocompromised state. In such instances, however, nurses make a point of telling the patient why they are "overdressing".

In sum, nurses' comments reflect the significance they have traditionally attached to "caring through touch" and the "laying on of hands". Fox et al. (1990) suggest that "the most basic aspects of the work that nurses do pertains to the bodies of the patients for whom they care" (p. 229). More specifically, Wolf (1988) has shown that bathing patients is one of the most important physical and symbolic foci of the corporeal dimensions of nursing, reflecting much more than a "hygienic set of procedures". Bathing symbolizes some of the basic values and meanings of nursing, in terms of providing comfort, healing, and respect. Benner and Wrubel (1989) go so far as to suggest that, for the nurse, "the body is seen as continuous with the person...Body is not an object that is separate from, or external to, the thoughts and feelings, the experiences and relationships, the life history, and the self of the individuals for whom nurses care as patients" (p. 231). It is perhaps understandable then that precautions may be perceived as interfering both literally and symbolically in the nurse-patient encounter. The nurses' need to separate themselves from the AIDS patient through the use of precautions may be dissonant with the nursing profession's conception of the importance of the "laying on of hands".

4. Factors Influencing Use of Precautions

In addition to those conditions that influence the nurses' adaptations of precautions, there are also factors that impede or facilitate the individual nurse's use of precautions.

a. Social expectations and support. The nurses' use of precautions was influenced by their perceived expectations of coworkers, patients, and their own families.

i. *Coworkers*. There appeared to be collective support at both the institutional and unit level for nurses individually to judge the safety of their particular situation. This autonomy permitted nurses a degree of control over their fear. For example, several commented that they were given "permission" to wear whatever they wanted to feel comfortable. This usually meant that nurses were allowed to wear more than was "necessary". Cost was not perceived to be a factor:

> D2: If people have concerns, if they don't feel safe, we tell them it's okay for them to wear gloves, and it's better for them to feel comfortable and protect themselves even if it costs the institution a lot of money that they don't need to spend.

Similarly, D8 suggests that the degree of protection used rests with the nurse's appraisal of risk:

> They've told us what they [univeral precautions] are, they've told us to use them, and not to hesitate not to use them. And it's a personal decision you have to make about how much you're willing to risk exposing yourself...in terms of budgets and costs, no one says anything if you go through a box of gloves in an eight-hour shift. A box of gloves is seven bucks, you know.

In addition to the overall hospital policy supporting the use of protective clothing, coworkers on the nursing units also appear to support the nurses' judgments to use precautions to the degree required to achieve a feeling of comfort and safety. Two nurses comment on this perception:

> D5: [Others] just saying, it's okay to be scared, and if you're not sure about something, if you're not sure when to wear gloves--wear them all the time. Caring for an AIDS patient is a very personal kind of thing, and if you don't feel comfortable touching them on a casual basis, then it's okay if you wear gloves. [When speaking of new staff] And I do sometimes say, you know, it's okay to be scared. But put your gloves on and if you want to put the gown on, go ahead.

> [In speaking of new staff coming to the unit, D7 says] If they prefer to wear a gown for something they really don't have to, I don't say anything because I guess sometimes I do. And whatever you're comfortable in.

D1, who perceives herself as being more cautious than her coworkers, nevertheless, felt free to use extra precautions in spite of their teasing:

> I even get laughs from the girls. "There goes [name] and her forceps, she must be taking a chem strip, she's got all the gear and everything". Things hanging on my

> side, and I laugh and say, yeah, you know, I have a problem with it. You know, and they can laugh--like we all get along and joke.

While coworkers appear to accept variation, they also act as role models of "acceptable" behavior. This "upward social comparison" (Taylor, 1983; Stewart, 1989) provided information while also assuring nurses of minimal risk:

> D5: My peers--no one else wore masks. I think you learn a lot from those people you trust and who you have respect for, and that shows you a lot.

Although nurses suggest that they are free to wear whatever makes them comfortable, on the other hand, there may be "informal" expectations that inhibit an overuse of precautions. Overdressing may convey rejection of a patient who is already perceived as being stigmatized. Evidence of an "acceptable" limit to the use of precautions appears in nurses' criticisms of other staff members:

> D4: Well you get the new doctors...when they go in there all goggled and gowned and masked sometimes, you'd like to say...you feel sorry for the patient because you know they feel like a leper to begin with...I find that hard 'cause the patients themselves find it hard. They understand, and they try to understand. But it still makes them feel bad, and when you see something like that it's not very good.

> D11: And another nurse who looked after the patients would stand around the door and not go in, and she would put gowns [on] and she'd put gloves on and masks on, like overdoing it.

Such criticisms usually were directed at "conspicuous" use of protective garb, such as masks and occasionally goggles. Masking may interfere more concretely with the nurse-patient relationship by creating greater social distance. It may be a more striking symbol of rejection because it interferes directly with communication (Roth, 1957). Furthermore, it is much more unusual than gloving and gowning. D7 suggests that while variation may be allowed in gloving and gowning, masking may be more "off-limits":

> Sometimes they overdress...they don't really overdo it, because--we'd probably tell them, you don't need a mask just to walk in the room.

Hospital policy may conflict with the informal expectations of the unit. One nurse recalls how casual nurses who came to the unit when PWAs were first admitted were afraid in spite of the assurance they received from others. D3 describes the conflict that may arise from discrepant expectations:

> Some of the staff made them feel as if they were idiots, made them sound as if they were in the dark ages for not knowing that you can't get AIDS from just...when you're not doing a procedure. But I was glad the hospital policy was you do anything you want to do to make you feel safe. And so it was permissable [to wear goggles].

Casual nurses, however, may feel more comfortable "overdressing" than may regular staff. Social disapproval from those who are not a regular part of one's network may be less traumatic to one's professional self-esteem.

ii. *Patients*. Nurses not only perceive expectations and support from their coworkers but also from the patients themselves. Patients convey their expectations of acceptable nursing behavior through their verbalizations about the care they received elsewhere or, more directly, by voicing their concerns about their present care. One nurse recalls a patient's feelings as conveyed to her:

> D7: And there's one unit especially, the girls there, they go in with gowns, masks, gloves, everything for these patients. And then when we have an empty bed, the patients will come to us and they'll be so relieved, they'll say, to be back here because [of] those stupid nurses.

Similarly, D6 quotes a patient's remarks about the use of precautions:

> "I get upset when people don't really know me and they just come into the room and they stand about six yards away from me. I'm asking them to hand me that glass of water and they'll say just a moment. They come back later gowned, masked, gloved, and booties and goggles on...Then I look at them and say 'forget it'".

Although patients' feelings may not be revealed to the nurses until after the nurses are themselves comfortable and exhibiting appropriate behaviors, there were other instances where patients and their families informed nurses of their feelings in a more direct way. For example, it was a patient's partner who expressed his disapproval of D1's overcautious approach:

> His partner...says "you'd think we had a contagious disease here or something". He was letting me know that he didn't approve of me wearing this glove and gown and mask...to give medications.

While patients occasionally may express their disapproval of nurses' behaviors, nurses generally perceive patients to be knowledgeable about, and accepting of, the precautions nurses take. Moreover, patients are perceived as "partners" in helping nurses to take appropriate precautions to protect themselves from exposure. That is, patients share in controlling the risk for nurses. Almost all nurses cite situations where patients "look out for your welfare". This is particularly evident in those situations where nurses inadvertently may neglect to use precautions:

> D6: I've had people with HIV bleeding and the patient [himself] will say "OK, I'll hold it. You go wash your hands and glove." They are extremely responsible and conscientious in caring [about] the health care people who are caring for them...They are all so caring that you don't spill the bottle, that you don't get stuff on yourself and they say to you, "you better take that off, go take that off and get some scrubs on."

> D4: His IV came apart, and I went to put it back together, without thinking, because that's what we always did, like you just grabbed it and put it back together. I never thought, and he pulled his arm away from me [so that I wouldn't get blood on me].

Moreover, that neither the patients nor their families expect nurses to put themselves at risk is suggested by D4 as she describes how some nurses may disregard precautions in order to show their acceptance:

> I've even had patients' families say to me, "are they trying to get AIDS?"...the family doesn't expect it, and a lot of times the patient will say to you, "hey, don't do that--put your gloves on."

iii. *Nurse's family*. Finally, in addition to the expectations of coworkers and patients, nurses also may perceive expectations from their own families. All but four of the nurses indicated that their families were concerned for their safety at some point. Some nurses specifically stated that their partners admonish them to be careful:

> D5: [My husband] always says, you've got to be careful, you've got to be careful. And I keep reassuring him that, yes, I am careful.

> D1: We're a high risk. My boyfriend just says make sure you're real careful. And every day that you go in a room, think first when you're going in what exactly you're going to do.

Another comments that thinking about her family encourages extra caution:

> D4: You can't let it slip, because sometimes you do get a little bit too slap-happy in thinking...But all's I have to do is think about my family, and I double up on what

> I'm doing and just be that little bit extra careful...Like I would never muck with their blood. The time it takes me to put on a pair of gloves that are in the room, they're not going to bleed to death.

iv. *Summary*. In summary, social expectations of nurses' use of precautions may be considered as enhancing their degree of control. Coworkers support the use of precautions, except perhaps in those situations where their use is perceived as symbolizing rejection of the patient. This support for the individual's own judgment in appraising danger has been reported by others researching dangerous occupations (e.g., Haas, 1977; Fitzpatrick, 1980). Of particular interest is the finding that patients act as a resource to nurses in controlling risk by reducing the uncertainty of inadvertent exposure. Such actions by the patient are indicative of "instrumental" support (House, 1981). Moreover, nurses perceive this support as evidence of "concern and care" for their welfare, suggesting that they also perceive it as a form of "emotional support" (House, 1981). That instrumental support often communicates concern and thus resembles emotional support in its effects is supported by others (House, 1981; Cohen & Wills, 1985).

b. Previous learning. For most nurses, the recommended precautions are relatively new and require a conscious effort to learn and apply. This process required nurses to unlearn some ingrained habits that could increase their likelihood of exposure. Remembering not to recap needles was a concern for several nurses:

> D2: I follow protocol to the letter. There's a few things that I have difficulty with because I've practiced nursing for a long time before I came to this job, and so many things I did were ingrained and I did them...before the practices changed. And so now I find that I really have to make a conscious effort...For giving needles, for not recapping, I do things, like I have to take the sharps container and stick it under my nose, and by doing that I automatically will stick the needle in and I don't recap.

> D10: I trained in a time where you recapped needles. And that still is a very difficult habit for me to break. It takes so much effort to concentrate, to not do that. Of if I'm going to recap it, to not hold the cap but to use the bed or the med tray if I must recap.

Several nurses mentioned the almost instinctual impulse to "save IV's" as posing a problem. D13 explains:

> And sometimes they come apart--all the blood spurts out of the cannula that's in the vein and goes all over the place. And our instinct is to go and save that IV before we protect ourselves...so what if you lost an IV!

This latter statement suggests that the use of precautions may require a shift in emphasis from protecting the patient (from the discomfort of restarting an IV) to protecting oneself from harm.

c. Structural resources and constraints. The institution has provided resources to encourage the use of recommended precautions. To facilitate the proper handling and disposal of needles, there are disposal containers in each patient's room. Containers with bleach solution are set up in patients' rooms to ensure that blood spills can be wiped up immediately. An abundance of gloves, gowns, aprons, and goggles are kept on the unit. While nurses perceive that it is feasible to follow precautions, a few suggest that work demands occasionally may inhibit their use "to the letter". For example, D6 admitted that if she is in a hurry, then she may glove only one hand to change IV tubing. D13 also indicated that if it is really busy, then she may glove only, rather than glove and gown, to change a patient. Additionally, several nurses pointed out the aggravation of using gloves that fit improperly or even tear. This, however, has not deterred nurses from wearing them. Rather, they have adapted procedures by using different equipment. D13 describes her dilemma in protecting herself when using a lancet to draw blood for a diagnostic test:

> When you go to poke someone...it often is quite messy...and the problem is, if you do it with gloves, it's really hard to do. So...it's kind of like you're darned if you do, you're darned it you don't [but] you do glove...I mean it might be a little bit more difficult, but you do glove...I've come out with blood-smeared gloves a lot of times.

d. Optimal level of comfort and fear. Virtually all nurses commented that repeated experience with precautions facilitated their use. Paradoxically, while repeated experience with patients ensures that precautions will become "second nature", two nurses suggested that increased familiarity with patients may result in their becoming "lax" in the use of precautions. This, however, is an unintentional relaxation of vigilance rather than an intentional discretionary use of the recommended precautions as discussed previously. The unintentional relaxed vigilance may pose a "second order risk". The unintentional nature of this relaxed vigilance is reflected in the nurses' inability to articulate with any certainty how this happens. D4 speculates:

> After you get working with them for a while, I think sometimes you become almost too...lax, and then all of a sudden something will happen and then you'll--hey, now be careful, you almost--Like after you've had them, say you've worked with them through three or four days before you realize that you're just sort of--I don't know what happens...brain leaves you or what...I guess [you] become too comfortable. They're there all the time; you're working with it all the time...I don't know whether you forget--you don't forget...I don't know if you forget the diagnosis or what...I don't know whether you deny the fact that they--that's what they have because you don't want this to happen to this person or what.

D3 also suggests that perhaps familiarity results in using less precaution:

> I think that working on the ward, we may become lax in that unless it's gross--excrement, we don't even gown anymore...now you go in, and because we're so used to them, and they wander back and forth...we've sort of got so accustomed to them--there [in the unit where the first PWAs were treated] they were still rare. Here we have them on the ward all the time. And I guess we're getting so used to it that--in little ways, anyway. That's what I call lax 'cause I would never have done it a while ago.

Indeed, it did appear that the nurses who cared for patients less frequently did gown to a greater degree (e.g., they may gown when working with patients' IVs). The above comments were also verified by D9's observation that while the nurses on her unit do not routinely care for PWAs, with other patients an increased comfort level does appear to make nurses less likely to "remember" precautions. When caring for PWAs, however, precautions are followed more faithfully. Whether this is because of the fatal nature of AIDS or less experience with it is, however, unclear. This unintentional relaxation of vigilance appeared to be the exception among the nurses interviewed. Most conveyed that "you never forget", even though the intensity of emotion associated with threat decreases. Indeed, an optimal level of threat-related emotion was found to facilitate the problem-focused efforts of adaptive vigilance (Lazarus & Folkman, 1984; Janis, 1967; Rachman, 1978). Several nurses point out the adaptive function of a "healthy fear" in motivating them to follow precautions carefully:

> D11: If they [new staff members] were saying that they wanted to take care of AIDS patients but they're still scared, I think it's probably good because that way I know they'll take their precautions.

> D5: It's okay to be scared. 'Cause I think if you're not scared, you're not careful.

Similarly, D4 elaborates on the need to achieve a balance between fear and comfort:

> I know I'm not invincible by any means. A little bit of healthy fright doesn't hurt anybody--in fact, you need it to keep yourself on your toes. It's the unrealistic fright that you're going to get it by touching...A healthy fear... is going to keep you alert...to the things that you should be doing...You have to always be a little bit on guard. You just can't let yourself get lax because--it's your life you're dealing with. It's just like dealing with a rattlesnake. He can strike at anytime, if you're not careful. It bothers me enough to make me careful. But it doesn't scare me.

Nelkin and Brown (1984) also found that workers over time may become inured to risk. Similarly, Wolf (1988) reported that nurses' frequent contacts with patients with infections "lulled them into a sense of complacency", with less attention to risk. She too, however, found that this was an exception rather than the norm. This may be an example of habituation to the fear (Rachman, 1978; Janis, 1969/1982), in which fearful reactions decline after repeated exposures to provoking stimuli. In turn, decreased fear may lead to less cautious behavior.

e. Previous exposure. Previous exposure in the form of needlestick injuries or cutaneous exposure appeared to raise nurses' feelings of vulnerability and resulted in an increased use of precautions. D7, after sustaining cutaneous exposure to blood, increased her use of gloving. In fact, while most nurses decrease their use of gloves over time, she states, "I'm not afraid *to* wear gloves anymore... since then I wear gloves so much it's like they're part of my hands". Previous to her exposure, she did not wear gloves because she thought that the patients would feel "ostracized". While she admits she may still at times feel badly about gloving, her own safety now overrides these feelings. Moreover, she adjusts to these feelings by explaining to the patient her need to glove. D1, while pointing out that she has always been "careful", said that since her exposure, she, too, has become more cautious: "I'm sometimes in a really contaminated environment, and I don't touch anything at all. It's made me more phobic." In addition to becoming more cautious for herself, she has become more vigilant in protecting others:

> I always make sure people have their gloves; some people forget, and...I'll hand them gloves...It's just given me a more careful, cautious attitude.

An increase in vigilant behavior following exposure is supported by the victimization literature. Janoff-Bulman and Frieze (1983) found that once victimized, individuals may become more vigilant in an effort to increase their sense of environmental control, which will minimize their "newfound" vulnerability. Extra attention to preventive behavior reestablishes a sense of control and safety. A more cognitive explanation suggests that an "availability" bias (Tversky & Kahneman, 1974) may be operating. Once victimized, it is relatively easy to see oneself in the role of victim again, because the experience is now available and one sees oneself as "representative" of the sample of people who are victimized. Moreover, if this victimization was traumatic, then its' "vividness" contributes to its availability.

D. REDUCING PATIENT CARE CONTACT

In the preceding section I have described how nurses protect themselves from contact with potentially infectious body fluids. While all nurses were careful to avoid such exposures, few nurses avoided the AIDS patient himself. Most interviewees do not view outright refusal to care for PWAs as an option in managing their fears. Slightly more common, however, are examples of reducing contact with PWAs in terms of ***minimizing*** the amount of time spent with patients and ***maximizing*** the physical distance between nurse and patient. These strategies were most common in the nurses' initial encounters with PWAs and, in two instances, were preceded by actual exposure. Moreover, social factors facilitated the choice of this strategy.

1. Requesting Not to Care

While some nurses were unsure about the institution's formal policy regarding their right to refuse to care for PWAs, most perceived that the institution's policy was that nurses could not refuse to care for PWAs (one nurse admitted she did not know). A few nurses provided anecdotes indicating that casual nurses' refusals to care became a "political issue" once administrative staff became involved. This may have influenced nurses' perceptions of their own right to refuse. D2 put it this way:

> The institution's expectation is that all nurses have to look after AIDS and HIV patients and they don't have a right to refuse care...if nurses weren't comfortable looking after them, they could attend this and that educational session, and then if that didn't solve the problem, then they weren't welcome to work here because the institution's stand is that you look after the patients and that you don't have the right to refuse to care for them.

Of the nurses interviewed, only one reported that she avoided caring for patients. It was following a needlestick injury from a patient whose HIV status was unknown that D1 began to actively request not to care for PWAs. Any contact with HIV-positive patients elicited feelings of fear and vulnerability. Avoiding patients was an attempt to control the emotional distress such contacts may generate and to prevent exposure itself. She explains:

> And knowing how I felt...that I had probably contracted the virus, I even went to the girls that were doing the scheduling for the next day of who your patients are. I would go right up and say, "I don't want so and so. I can't work with them; I'm sorry, I really have a problem with it. Don't give them to me"...A lot of times I lucked out and didn't have the patient, but then if it was assigned I would go to whoever assigned and say, "can you switch this because"..."Oh, sure. I'll give you so and so, or I might have to give you these two because I can't give her these and then this heavy one"...I'd take the whole floor if I had to rather [than care for PWAs].

She found herself even avoiding being physically present in the same room as a PWA and avoiding interaction with the patient's family. Her fear of the risk of coming in contact with body fluids was heightened by a perceived vulnerability to the consequences such an exposure may present:

> This one lady that had full-blown AIDS, I refused her every chance I got...'Cause every time someone sat her up, she'd projectile vomit...like I could not go in that room. I couldn't even go in to help them put her back to bed. Like I just couldn't be around that lady. I just came unglued, I shook so bad, I got white, I just saw myself in her...I just thought, that could be me.

Coping with fear by physical avoidance was facilitated by the social context of the nursing unit. A "supportive" network of coworkers facilitated D1's behavior by accepting her behavior and by meeting her requests. Moreover, they did not expose her behavior to others whom she perceived as less supportive:

> They [the nurses] were good; they never asked why. They just said, "well, you gotta get over your fear, these people are normal and just wear gloves," but they never knew what I was carrying on inside of me...But they were good...My boss never knew, and she wouldn't go along with it. She would say, look, you get who you get...Luckily, there was never any question about it. It was never taken up to the supervisor, like this particular nurse, every time she's assigned this patient won't work with her, and we all have to. No one took that--no one seemed to care.

In contrast, D8, on another unit, felt that the reality of the situation made it inevitable that she would eventually need to "take her turn". When asked about the options of refusing, she states:

> I wasn't going to say, I don't want this assignment...Probably because I felt if I said that, there's going to be another patient when it's going to happen again, and I didn't want to keep putting it off...let's get it over with. If I'm going to end up looking after an AIDS patient, let's do it and get it over with. Put it behind me. And then I'll say, I've had my spell looking after him, I won't have to do it next week.

The ward situation itself may influence the feasibility of refusing to care for PWAs. D1 was able to refuse because there was always only one patient on the unit at a time and then only occasionally, maybe "one or two a year": In contrast, other units may have as many as nine patients on the unit at one time, making it virtually impossible to continue to refuse patients. Nevertheless, refusal is not seen as a long term solution. With the information that PWAs would increasingly be coming to her unit, changing her job to one where HIV exposure could "legitimately" be avoided became a consideration for D1:

> I'm even thinking of getting out of the floor I'm on...One of these days we're going to get someone that's going to need suctioning...and I won't be able to refuse. So now I'm thinking I'll go into a cleaner field...I thought of pharmacy...I'll be behind a counter where I don't ever have to touch a patient.

2. Legitimate Refusal

Nurses perceive that there are circumstances when they could legitimately refuse to care for PWAs. This includes situations where the nurse's own health is perceived to be in jeopardy. For example, if nurses have open areas on their hands, then they may feel freer to refuse. Moreover, as nurses care for patients over time, they appear to feel more comfortable refusing for reasons based on their own personal relevances and situations, such as having a bad day at work or at home. The right to refuse may also be influenced by one's acceptability of the patient. As one nurse states, "I would not hesitate to refuse to care for patients [if I have eczema] because I don't have any feelings of not wanting to look after them." Paradoxically, it appears that if one "accepts" the patient, then one can more readily refuse to care for him. On the other hand, if one does not accept the patient, then it may be harder to justify refusal to oneself or others. This suggests that avoiding patient care may be influenced by both risk and prejudice.

3. "Keeping My Distance"

The type of avoidance behavior employed may be influenced by the type of patients. In contrast to very ill patients, patients who are ambulatory may be "avoided" more easily without actually having to "refuse" to care for them. Nurses may be able to care for them in a perfunctory manner without getting "too close" physically:

> D1: He's up and around, does his own care, you don't have to do anything for him...I could go in and put his pills on the counter and he'd take them...I didn't have to do any treatments for him or chest physio or have him coughing or anything. So I thought, I can handle that. I just have to give him his meds and I can keep out of the room and I can keep away. But if it's someone that's really incapacitated [that's different].

This nurse extends her perfunctory care to those who *may* be HIV infected based on her assessment of potential risk factors:

> If they were in their mid-twenties to thirties, if they either came in with HIV positive or if they came in with drug abuse by needles, regardless of what their illness is, if they had any of these things going for them, I didn't want to be in their room. I would go in, I would give their meds, I'd kind of keep my distance, I'd smile, I would talk, I'd do my nursing. But inside I had a feeling like just don't get close to me, 'cause I can't cope with you kind of people.

She maintained her distance even for a patient whom she had known previous to his hospitalization and who was not HIV infected, based on his potential to be infected. When she did treatments that necessitated closer contact with patients, D1 adapted procedures to allow her to "keep my distance":

> When I would take their blood pressure, I'd make sure I'd get a long stethoscope. Like there are some that are really long, there's some that are short. The short ones are more expensive and more accurate, but I'd use a long one, 'cause I'd rather not get too close. So I'd put it on the arm, and that way I could stand my distance, lean and turn my head. Like I mean, nothing's going to jump at me, but it's just then that I had that fear. And listening to the chest, you can listen to it far away. You don't have to get right up close, with the long stethoscope. All these little things that I took into consideration.

When avoidance was not possible, she elicited help from coworkers, who "take the initiative" in providing the care required.

While avoidance and keeping distance were not mentioned by other nurses, several spoke of initially giving perfunctory care, mostly in terms of the time they spent with the patients. This may have allowed them to meet "minimal" professional demands while still managing their own feelings of fear. The focus on self versus patient is exemplified by these statements:

> D8: The first few times that I had him was like, I'd walk in, do what I had to and sort of get back out. There was little to no [interaction or speaking to him], like anything personal. I didn't think of anything beyond that.

> D13: I think at the beginning I was so scared I just wanted to get in there and then get right out of the room again.

The perceived expectations of others and the need for social approval may influence nurses' efforts to avoid distancing. D5 stated that initially she was concerned about "wanting to be part of the unit" and therefore "tried not to" engage in behaviors that she considered to be unacceptable (e.g., keeping her distance from the patient). Indeed, one measure of the nurses' uncomfortableness seemed to be the physical distance nurses maintained with patients. As one nurse remarked, nurses who are uncomfortable with patients may sit "twice as far away or just ask questions from the door, and not have the personal contact that you would have with any other patient". D6 describes a patient's uncomfortableness with a nurse who "keeps her distance":

> She's very uncomfortable with me...I'm sitting the other side of the room, and I've only got to cough, and if she's in the room, she'll jump ten miles...I don't want somebody like that around me all day.

4. Indirect Avoidance

Several nurses gave examples of casual or float nurses refusing to care for PWAs. Although these nurses' requests were honored at the unit level, such requests were perceived to disrupt the workings of the unit. It appeared to be more acceptable to refuse to "appear" on the unit than to refuse to care for patients once on the unit. Indeed, some nurses indicated that while nurses should have a choice of whether they wished to work on a unit known to have PWAs, there was less tolerance for nurses who refused to care for patients admitted to their unit. Not coming to the unit then was an indirect, and perhaps more acceptable, way to refuse to care for PWAs. D5 explains:

> They know if they come to the unit that they may get an AIDS patient. So that if they don't want to work with the AIDS patients, they don't come to the unit...I think that's something that's been kind of passed on through the floats...whoever comes there may get AIDS patients, and if you don't want to work with AIDS patients, then maybe our unit isn't the unit to come to.

Coming to the unit and refusing is perceived to be more disruptive:

> D5: And I've had some people...when I first started that came to the unit, and if they had an AIDS patient just said that they couldn't handle it and refused, and wanted a different assignment. Which is really difficult because, if you're the person in charge you have to rejuggle everyone's assignment. And if they've already written it out, listened to report...it's not fair to everyone else.

5. Collective Avoidance

While individual nurses may not feel free to refuse to care for patients, there is some indication that units as a whole may attempt to exercise choice in refusing to accept PWAs or, if this is not feasible, to transfer patients to other units as quickly as possible. Nurses on the Infectious Disease unit perceived that many other units do not wish to care for PWAs. Those nurses interviewed from other units confirmed this perception. The self-reported motive was based on a feeling of inadequacy in caring for patients. Individual nurses expressed their preference for an AIDS unit, which would insure that patients receive "proper" care by those who "really care" and are knowledgeable. D1 explains:

> I think they should actually have a floor in this hospital for AIDS patients and HIV

> patients, and the nurses that want to work with them, and nurses that should be paid more to work with them...because of the hazard. Because of the scare. Because of all the stress involved in working with them. And because they need someone that really wants to care for them.

These nurses' feelings, however, are at variance with that of the institution as a whole and, in some instances, with that of the unit managers. D9 sums up the discrepant feelings:

> The majority of the nurses working in the hospital feel that AIDS should be contained into one unit, yet the institution's philosophy is that all units and nurses must care for patients.

Advocating a separate unit for AIDS patients may be interpreted as a collective coping strategy that would permit some nurses to avoid caring for patients while still preserving their image as professional caregivers. It is of interest that some nurses who care for PWAs regularly also may agree that patients would be better cared for on a separate unit. The motive for their belief, however, was said to be not one of avoidance but a belief that patients may receive better care.

In discussing the nurses' avoidance of patient care contact, I have focused primarily on the function this strategy serves in reducing the risk of exposure. This brief and limited discussion belies the complexity of the issue of refusal to care. Avoidance may be influenced not only by the fear of contagion but also by the nurse's acceptance of patients. For example, the nurse who requested not to care also was negative toward homosexuals and IV drug users. Acceptance of the patient will be discussed in a later chapter. The issue of refusing to care also anticipates the dimension of professional commitment in nurses' decisions to refuse to care, which will also be discussed in a later chapter.

E. SUMMARY

Coping strategies designed to decrease the risk of exposure increase the nurses' control over risk by defining what is dangerous and by protecting them from danger. Increased knowledge led to a more discriminatory approach to vigilance, both in monitoring of risk and in carrying out precautions. The fatal nature of the consequences of exposure, however, results in an approach that attends to "possibilities" and theoretical risk. Nurses adapt precautions to increase their control over uncertainties arising from their own comfort level, from the ambiguity surrounding the disease itself, and from the uncertainty of client response.

Nurses' efforts to reduce exposure are facilitated by the social context of the nurses' work situation and the structural resources available. Nurses' individual efforts are influenced by both coworkers and patients who are generally perceived to be supportive.

Although nurses are diligent in avoiding contact with body fluids, avoiding contact with the patient appears to be dependent on the degree of fear and tended to be more common in early encounters with patients and following HIV exposure. Again, the social context of the unit influenced the use of this strategy.

VI. MAKING RISK MANAGEABLE: REDUCING FEAR OF EXPOSURE

Although nurses strive to decrease uncertainty by increasing their knowledge about AIDS and increasing their actual control over potential exposure by adhering to precautions, some uncertainty remains. Not all eventualities can be predicted, and a degree of medical uncertainty about the transmission exists. Moreover, nurses do not always "feel" safe in spite of the knowledge they possess. While nurses may cognitively know that they are relatively safe from becoming HIV-infected or that the objective risk is statistically low, several pointed out that this knowledge is not enough to dispel their fear. There is an affective as well as a cognitve component to feeling safe. As one nurse remarked, "You have to *believe* that you're not going to get AIDS". A major theme expressed by nurses was their need to become comfortable with the risk. In their efforts to adapt to the risk, they employ strategies that will provide a degree of emotional equilibrium and reduce fear. While in the previous chapter, nurses efforts were directed toward objectively modifying the aversive situation to reduce risk, the strategies to be discussed in this section may be viewed as efforts to maintain a "sense" of control over exposure by accommodating to the emotions engendered by the uncertainties of living with risk. Nurses' attempts to decrease their vulnerability included reappraising the threat as well as diverting attention from the risk itself. In short, situational features of risk are altered cognitively. I will discuss coping efforts in terms of four major categories: minimizing risk, denying risk, reducing the saliency of risk, and accepting risk. Within each area, more specific substrategies will be addressed.

A. REASSURING SELF OF MINIMAL RISK

Nurses' efforts to decrease their sense of vulnerability to risk involved two strategies: a cognitive reinterpretation of coping strategies, and social comparisons to reinterpret the aversiveness of the risk itself.

1. Being Careful Protects

Reassuring oneself of minimal risk may result from previous coping strategies aimed at increasing actual control over exposure. That is, fear is reduced by actions that alter the source of the distress, which, in turn, leads to a cognitive reinterpretation of the efficacy of coping capacities and a perception of increased control (Houston, 1987). More specifically, carrying out precautions leads to increased confidence in one's knowledge and skill to prevent exposure, thereby providing a sense of control over risk. Such an "efficacy expectancy" (Bandura, 1977) conveys that one can successfully execute strategies that will prevent exposure. This, in turn, leads to a positive reinterpretion of the aversiveness of the event. For most nurses, following precautions and being careful contributes to a reappraisal of risk as preventable and manageable. They perceive themselves as being able to prevent the likelihood of exposure by adhering to precautions. When asked how concerned she was about getting exposed, D11 states:

> I don't think I'm really concerned about it 'cause I know I take the precautions that are necessary...and if I'm giving an injection or something I'm very conscious of what I'm doing and aware of what's going on, so I'm careful. And I think as long as I do that, I'll be safe...I am concerned but I do take precautions and I'm careful.

D4 emphasizes that fear reduction is contingent on manageability:

> Until you get working with it, the fear is there, like no different than if you are working with a rattlesnake. Until you know how to handle it, you're going to be afraid.

Moreover, her choice of words illustrates her belief that exposures are avoidable through the nurses' diligent use of precautions:

> I know I could get it if I wasn't careful...If I got *stupid* and jabbed myself with a needle, or if I *fooled around* with their blood...If you were *dumb*, like if you did have massive eczema on your hands or terrible cuts, you could get it if you came in contact with their body fluid. There have been cases...but they've been incredibly *stupid*. And I'm not going to be that way [emphasis mine].

That exposures are preventable by the nurse's own knowledge and skills is most confidently expressed by D12:

> I feel I have no risk from work. I don't recap needles...And if I get a needlestick

> injury, then I should have my hands cut off. Because really there is no excuse for them. If you're doing everything what you're supposed to be doing, then you shouldn't be having a needlestick injury...If you use a needle on anybody and recap it, then you're taking the chance. I never recap. Never.

The nurses' confidence in their knowledge and skill to prevent exposure may even extend to their ability to handle more "accidental" or emergency situations. In these situations precautions protect because they have become automatic. D6 describes how she addressed her husband's concerns about her ability to handle such situations:

> I don't think, I know in fact...[that] with the HIV patients...if he was bleeding, I would not put my hand on [the patient's blood]...I would grab a sheet, his gown, my gown, if I was wearing one, whatever...I would double thicken it, and I would put that on pretty quick...I wouldn't stop to think have I got a cut, I would automatically get hold of something and use it. I wouldn't stop to think about that. That would be automatic.

She differentiates between feeling invincible and feeling comfortable, suggesting that confidence in her knowledge and skill conveys a sense of protection:

> Not that I was very blase and say that I would never get it, but I felt comfortable the way I was handling myself with the patients. I wasn't putting myself at risk really.

For some nurses, "being careful" was also perceived as a means of protecting them from exposures caused by others' mistakes. Few nurses discussed the importance of others providing a safe environment for them. Instead, control over risk was perceived to be achievable through individual action. One nurse provides some insight. She suggests that risk increases when one's own safety is dependent upon others' diligent use of precautions, particularly when it is difficult to detect whether others have followed precautions. Consequently, she is more leery of those diseases spread via the respiratory route because in such situations it is difficult to determine whether others have followed precautions. On the other hand, with HIV infection, even if others "make mistakes", it is more obvious. As she says, "If there's blood there you can see it, but if there's something in the air, you can't tell". Two nurses received needlestick injuries because of other nurses' actions. Although both were angry at the nurses who "caused" the exposure, they also expressed that they themselves should have been more careful. This suggests that control is perceived to be contingent on the nurse's individual actions.

"Being careful", however, may not always convey a sense of control. As mentioned previously, one nurse following exposure became hypervigilant in her attention to monitoring others' mistakes. While she believes that her own actions may be efficacious in preventing exposures due to others' mistakes, the increased vigilance required does not appear to lead to a "comfortableness" with the threat. Paradoxically, although she controls risk, risk also controls her because of her perceived need for continuous hypervigilant behavior. Her need to control all aspects of the risk situation actually lessens her "sense of control", because risk becomes too salient. It will be recalled that similar feelings were encountered when nurses first cared for PWAs. This finding anticipates the importance of a further coping strategy to be addressed shortly, that of reducing the saliency of risk.

Another situation in which precautions may not always be helpful is in dealing with the unpredictable. As indicated previously, the unpredictability of situations is perceived to pose a continuing threat. While nurses are careful to prepare themselves for such eventualities as best they can, accidental exposure is a possibility. For example, the uncertainty of the client's response (Light, 1979) when he becomes short of breath and confused remains a source of anxiety for one nurse. In contemplating caring for this patient, D13 says:

> There's a little bit of--my stomach's kind of turning a bit right now. Like I said, I haven't seen him, so I really don't want to be prejudgemental here, but I'm not looking forward to it...[what are you thinking?]...what is the person going to be like? How sick is he really, 'cause when they get sick, they get really sick...and you wonder what he is going to do when he is like that [short of breath and confused]. They don't know how to deal with him, and we don't have the resources or nursing staff to deal with him...He may subject you to risk--spit in your face--if you got it in your eye, you could get AIDS.

Being careful also may not be sufficient to convey a sense of protection for those nurses who question the scientific information about AIDS. Confidence in one's knowledge and skills to prevent exposure assumes a belief in the established modes of transmission. Feeling uncertain about the manner of exposure decreases the feeling of control that precautions provide. In contrast to those nurses who perceive that exposure is largely preventable through diligent use of precautions, D13's belief in the uncertainty of knowledge about AIDS influences her risk appraisal:

> I might've calmed down a bit, I'm not like quite as hysterical about it, but...I think until they have some concrete evidence of what the mode of transmission is for AIDS, I don't think anyone's really going to be all that safe...[or] feel safe caring for these people.

In short, while most nurses appear to say, "I take precautions, I'm careful, I'm safe", her thoughts seem to be, "Being careful in terms of the recommended precautions may not be enough to ensure my safety".

In sum, "being careful protects" conveys a belief that exposure is under the individual's control and suggests a sense of mastery or primary control (Rothbaum et al., 1982) over the event, a belief that one's own actions can effect outcome. Those nurses who say that they have little fear are those who focus on the fact that they are "careful". On the other hand, the nurses who continue to be the most uncomfortable with risk do not convey the same confidence in the belief that "being careful protects". They focus on areas of uncertainty that are most difficult to control: accidental exposure from one's own or others' mistakes, unpredictability of patients' responses, and medical uncertainty. In other words, for them a given strategy may not lead to a particular outcome. This decreased sense of "outcome expectancy" makes risk less comprehensible and therefore less manageable (Antonovsky, 1987; Bandura, 1977). In short, perceived control influences the perception of risk.

2. It Could Be Worse

A basic principle of social comparison theory (Festinger, 1954; Schachter, 1959; Taylor et al., 1983) is that how we feel about ourselves depends on what and whom we compare ourselves to. Such comparisons are said to be particularly useful when objective, nonsocial means of evaluation are not available. In such instances of ambiguity, pressures arise to establish a social reality (Schachter, 1959). Given the ambiguity attendant in AIDS (particularly its uncertain incubation period), it perhaps is not surprising that nurses may look to others for reassurance that risk is minimal. By comparing their situations to situations perceived to pose a greater threat, nurses were able to decrease their own feelings of vulnerability. Such "downward comparison" (Wills, 1987) with others perceived to be more vulnerable reduces anxiety and enhances feelings of personal control (Perloff, 1983; Wills, 1987). Comparison took a variety of forms that included comparisons with others in other situations as well as comparisons with the self in different situations.

Many nurses who care regularly for PWAs compare themselves to those who only infrequently care for PWAs or to those who care for patients whose HIV status is unknown. Nurses perceive that repeated experience with the familiar increases their sense of control by decreasing those uncertainties inherent in novel and ambiguous situations. D2 elaborates on the increased sense of control provided by regularly caring for patients known to have AIDS:

> Now personally, I think outpatients are one of the biggest risks because you just don't know there what is going on...it's the ones that you don't know that are probably your biggest risk. I really think we have it over anybody else because we know what we have, we're conscious of it all the time, we're dealing with it all the time, so it's second nature for us to be careful. So I really believe now I'm safer where I am than I could be on any other unit.

In contrast, other nurses who care for PWAs infrequently minimize their vulnerability based on the fact that they are *not* exposed to patients on a regular basis. For them, the accumulation of risk resulting from repeated encounters with known HIV-infected patients poses a greater threat than the "not so familiar". This provides an excellent example of deriving the same meaning from different situations in efforts to construct a definition of risk as minimal. Each group compares itself along a specific dimension on which it appears advantaged. In such "dimensional comparisons" it is the choice of dimension that shapes the perceived vulnerability (Taylor, 1983). In contrast to the "social" construction of risk illustrated by the above examples, "actual" risk estimates are usually expressed as a function of three factors: the risk of becoming HIV positive from a single contaminated needlestick, the proportion of patients cared for who are HIV positive, and the frequency of needlestick injuries and other exposures (Schecter, 1989; Emanuel, 1988). Nurses who work with PWAs seem to suggest that their familiarity with patients (while increasing their contact with seropositive patients) increases their knowledge and skill thereby decreasing the likelihood of exposures. On the other hand, those who care for patients infrequently maintain that their chances of exposure are lessened because of the decreased frequency of caring for seropositive individuals.

Interestingly, even though "universal precautions" supposedly apply to all patients, nurses do take extra precautions with PWAs. It has been reported that health professionals who regularly care for PWAs testify that their anxiety is less when they know the patient's status and that they take more stringent precautions with AIDS patients (Pellegrino, 1989). The need to know who is HIV infected has become a significant concern for other HCWs caring for PWAs (Brennan, 1988; Wiley et al., 1990; Atchison et al., 1990). Wiley et al. (1990) found that nurses wanted to know as much as possible about their patients' HIV status, even though they recognize that a negative antibody result does not guarantee that the patient is HIV negative. Similarly, Brennan (1988) reported that 73% of nurses indicated that assurance of disclosure of patients' HIV status would be helpful. Sowa and Miller (1989) quote HCWs' sentiments that "you can't always play like it's the Super Bowl", suggesting that extra precautions would be taken for patients known to be HIV positive. While knowing may not in itself prevent accidental exposure, knowing may convey a sense of control over an otherwise uncertain situation.

In addition to comparing themselves to others who are perceived to be less careful and even less competent in situations that are perceived as more uncertain than their own, nurses also minimize their present risk by comparisons with other threatening experiences. Knowing that exposure has not yet occurred may increase their confidence in their skills to prevent future exposures. This, in turn, may sustain their belief that "being careful protects":

> D6: It wasn't till over a period of time that I got to sit down thinking, I was on hemodialysis for almost six years. I didn't get hepatitis B. I was in an extremely high-risk area with the blood outside the body. I took precautions, I didn't get it...If ever I was going to get a needlepoke, it would've been...there.

She goes on to describe her work in emergency where there was not only a greater chance of exposure to body fluids but also a greater element of the unknown:

> If I was going to catch anything at all, emergency is the place I'm going to catch it. Because there you didn't know what you're dealing with--especially with the road accidents, and there is blood all over the place.

Other nurses draw on still other past experiences to enhance their confidence in their knowledge and skills. D11 commented that her work in Infectious Diseases has brought her in contact with many contagious diseases, none of which she has contracted. D2 minimizes the likelihood of a needlestick injury because she has never incurred one, thereby convincing herself that "being careful protects". In contrast, those nurses who have sustained such injuries do feel more vulnerable to accidental exposures.

Weinstein (1987) suggests that an "optimistic bias" about the occurrence of hazardous events may be introduced when people draw on past experience to estimate future vulnerability. Weinstein found that if a problem has not yet appeared, then it is perceived as unlikely to occur in the future. Further, optimistic biases also increased with the perceived preventability of a hazard but decreased with the perceived frequency of occurrence of the hazard and with actual personal experience with the hazard. Slovic et al. (1980), using a risk analysis perspective, also found that a decreased feeling of vulnerability to an event may be related to a perception that the event is under the individual's control and to experience that has taught the individual that risk is minimal.

Finally, some nurses decrease their feelings of vulnerability by comparing AIDS to other diseases on the dimension of infectivity, selectively ignoring for the moment the dimension of seriousness:

> D4: I'm more afraid of hep B that I am of AIDS. Now that I know how virulent the one is and how weak the other is...The virus is not strong enough to remain alive outside the human body.
>
> D10: And actually, more health care workers die of hepatitis than they do of AIDS, or ever will...It's a very virulent organism, and it is going to hang out to dry for a long time on desk surfaces...where the AIDS virus, it's a very fragile virus, and it doesn't have the life of hepatitis.

The relative risk of acquiring hepatitis B after a single percutaneous exposure to blood from a patient known to be hepatitis B positive has been estimated at between 6 and 30% (Schecter, 1989), while the risk for HIV transmission following a single percutaneous exposure from an HIV-positive patient is about 0.43% (Henderson, 1989). Moreover, OSHA (Occupational Safety and Health Administration) has estimated that between 167 and 202 HCWs in the US died from occupationally-acquired hepatitis B in 1987 (Henderson, 1989).

3. Seeing is Believing

In contrast to the "downward comparison" strategy in which nurses compare their present situations to other situations perceived to pose a greater risk, nurses also may compare themselves to others in the same situation in order to define themselves at minimal risk. This "upward comparison" (Taylor, 1983; Wheeler, 1966) was enhanced by observing others who were perceived to be coping better than they were and was employed by nurses when they first began caring for PWAs. For D5, observing her coworkers was motivating and instructive because it gave her confidence in the abstract knowledge she already possessed that risk must be minimal:

> You learn by watching, and if you see someone else go into a room and do something and you know they've been working there for two years, and well, they don't have AIDS. And you really have to reflect on that and just think, well, hey, if this person can do it, then why can't I? I think you may know about the disease, and you know you can't catch AIDS by casual contact, but unless you see someone else doing those things, you don't realize that, maybe this is okay. It's a lot of working with the people who already work there who gave me the most confidence.

The importance of coworkers as role models is further suggested by one nurse's observations that inservice education offered by nurses who were comfortable with the risk produced a "social contagion" of comfort (Rachman, 1978) among the staff, "You became much more comfortable with it, seeing how comfortable they were". Similarly, another nurse commented that her observation that the staff did not make a "really big deal" about caring for PWAs increased her own comfort level. D4, who also used an upward social comparison to increase her sense of comfort with the risk, emphasized that in order to derive comfort from "seeing", the targets of comparison must be perceived as competent and trustworthy:

> Like Janet [a pseudonym] the head nurse, she'd go in there and give them a big hug and very calmly. Like I mean, she wasn't putting on a show like I know I was. And I could tell--like she's a very genuine person and she wasn't grandstanding, she wasn't putting on a show, she was very real in what she was doing--and in whatever care she went in and did with them. And especially her, [it made me feel less afraid]. Because she had worked there for awhile; this wasn't her first patient. Like they'd had other ones. So I felt that...she was somebody I could trust.

For other nurses, getting to know the patients and their families also served to "make real" the abstract knowledge about the modes of transmission, thereby increasing the certainty that risk is minimal. Comparing oneself to those perceived to have more intimate contact with PWAs (and therefore perceived to be at greater risk) minimizes one's own risk. Moreover, *seeing* that others are not developing AIDS lends further credibility to the knowledge about the modes of HIV transmission. D4 put it this way:

> Fear of contracting AIDS is natural until you start seeing the families and working with them...just watching the family...seeing with your own eyes that casual people are not getting it. Because nothing teaches you like experience, and seeing for yourself that not one family member is getting it through casual contact with the patient. I mean they hug and they kiss and they eat...None of them get it. So, like I'm not going to either...After a while you realize you're being stupid [feeling so afraid].

Finally, a further assurance that risk is minimal is provided by the nurses' observations that they themselves are not developing AIDS in spite of caring for PWAs. D4 explains:

> I was nervous...but you did it. You went in there and you took a deep breath and did what you had to do...And you'd get out of there the first few times and you'd think, ah! I made it again [laughs]. I didn't get it that time...I was terrified at first really...And eventually it just got easier--I don't know why. I guess just working with them. Realizing that you weren't going to get it, that you were still alive when you woke up in the morning, that it wasn't going to happen.

Another nurse takes a more long term assessment to assure himself of minimal risk. When talking about relaxing precautions for contact with urine and tears, he confidently states, "I'm alive, I'm here, and I'm negative".

The subjective nature of the nurses' definitions of minimal risk and, therefore, their sense of control is illustrated by one nurse who interprets the above information in light of the uncertain incubation period. Instead of minimizing risk, this leads her to maximize the risks:

> D13: The question is, can I catch it from looking after them? They say that people who live with AIDS patients can't get it from using the same cutlery or the same towels...the same toilets, etcetera, sleeping in the same bed. But--they don't know what's going to happen a few years down the road. The same thing happened with lung cancer and cigarettes. At one time it was thought to harm your health. Now they have concrete proof that it does harm your health. And I think really only time will tell.

In short, for her, seeing is not necessarily believing because the long latency of the disease can produce "false negatives". The long uncertain incubation period keeps the fear alive.

Other researchers have also commented on the changed perceptions of risk that arise when HCWs "see" that they are not getting AIDS from their patients. Bosk and Frader (1990) found that the practice of donning gowns, gloves, and masks became less frequent as doctors, nurses, housekeepers, and dietary workers "saw" that they did not get AIDS from the patients. Nelkin and Brown (1984) also found that in spite of an awareness of the long latency period of occupationally-acquired disease, workers exposed to chemicals appeared less concerned about risk over time.

The influence of observation on appraisal of threat has been discussed by Shaver and Klinnert (1982). They suggest that when individuals are uncertain or ambivalent about their own appraisal of threat (which is often the case in a novel situation), they will seek out information about the objective danger of the external threat by observing the emotional reactions of others. Observing others' reactions provides "cognitive clarity" (information) about the degree of threat inherent in the situation. Such "social referencing" (Campos & Stenberg, 1981) to knowledgeable others reduces anxiety.

In summarizing the coping strategy of minimizing risk, several general observations are in order. First, risk is minimized primarily in terms of the likelihood of exposure rather than in terms of the seriousness of the consequences of exposure. Second, in minimizing the likelihood of exposure, nurses assure themselves that precautions are protective. This reappraisal of perceived efficacy results from previous coping strategies directed at increasing actual control over exposure. That is, nurses' beliefs about control are reinforced by their experience with the use of precautions. Third, comparison strategies decrease nurses' feelings of vulnerability by enhancing their beliefs that "being careful protects" and that HIV is not transmitted casually or readily because of its low infectivity. Although some nurses do address the low possibility of acquiring HIV infection even if exposed, the major emphasis is on *preventing* exposure. In short, nurses decrease their feelings of vulnerability by maintaining a sense of mastery over the occurrence of exposure and by upholding their beliefs about the established modes of transmission. These reappraisals decrease the aversiveness of the threat because it is seen to be more manageable. That is, reappraisal of risk has a coping function because it helps to regulate distress (Folkman, 1984).

B. DENYING RISK

In an attempt to clarify the semantic confusion surrounding the term "denial", Lazarus (1983) has differentiated the defense mechanism of denial (an attempt to negate the problem) from the response of avoidance (the deliberate attempt to avoid thinking about the problem, which is nonetheless accepted as real). This distinction seems useful when analyzing nurses' responses to risk.

1. "It Will Never Happen to Me"

Very few nurses reported using denial as a coping mechanism to manage the threat of contagion. Three nurses, however, do suggest that some denial may have been an early response to caring for PWAs. Interestingly, those nurses who admit to feelings of denial have all had actual exposures. D7 describes her initial response to caring for PWAs:

> At first I didn't know anything about it, and I was scared, but I guess [I] had that, oh, it would never happen to me way of thinking. [When speaking of her exposure to blood] It was something that happened to other people...It might have been a mixture of both, that I was frightened for me too, but I didn't really think it was something that I would ever have to personally experience.

D11 suggests that some denial may have been protective for most nurses:

> Well, I suppose there's always that sense, well yes, it's there but it's not going to happen to me. It's like it always happens to the other person. I think everybody thinks that.

Denial, however, in no way is antithetical to "being careful". On the other hand, being careful and feeling in control may lead to a "denial" of vulnerability, as suggested by D4's account on the effects of an actual exposure:

> Oh, then you realize it can happen to you. Up to that point it never can happen to you...you're always too careful. I mean, you always think that you're supernurse...it can't happen to you 'cause you always do this and you always do that...you're always very careful, this doesn't happen. And then when it does happen, you think...now I know it can happen to me.

This statement suggests that such a denial is really a perception of invulnerability based on the belief that "being careful protects" and that this "illusion of invulnerability" (Perloff, 1983) breaks down when actual exposures occur. Two other nurses' high level of confidence in their own knowledge and skill to prevent exposure could perhaps be interpreted as a denial of risk from accidental exposure or an "illusion of control" over chance events (Langer, 1975). Langer maintains that people typically have an illusion of control or an exaggerated sense of their ability to control chance outcomes which leads them to overestimate their ability to avoid negative outcomes. D6 describes her response to her husband's concerns about her ability to carry out precautions in emergencies:

> He said I know that you are extremely careful when you are nursing them, but supposing the situation calls when you are in such a hurry and you are not careful. I said it never happens, it will never happen. I said the thought never leaves you.

This feeling of invulnerability, however, does not lull her into a sense of complacency that would increase her *objective* vulnerability. Instead, such feelings of invulnerability may be perceived as adaptive because they allow one to go about one's business without being immobilized by fear and being constantly "on guard". In other words, feelings of invulnerability may provide nurses with a basic sense of security necessary for daily "survival" by enhancing their belief that the world (read risk) is orderly and predictable (Perloff, 1987). In short, they are assured that "being careful protects".

It is questionable whether nurses do in fact "negate the problem". They do, however, exhibit what appears to be an ambivalent stance about their vulnerability to risk. Several pointed out that they are "not really at risk", yet are "not invincible". One nurse stated, "If I was really at risk, I wouldn't be there", yet qualified this by saying she is always a bit afraid and is "not invincible". Yet another said that she did not feel she was "putting herself at risk really" because of how she was handling herself with the patient (i.e., taking precautions). Still another, who had been exposed, did not feel "100% safe" but did not feel she was "endangering" her life. These statements suggest that nurses do acknowledge that they are at some risk, but they also believe that following precautions is generally protective. Such a cognition may allow them to maintain a sense of control over exposure by focusing on "realistic" (i.e., controllable) threats, while at the same time retaining a limited sense of vulnerability. This may be protective because it may motivate them to engage in those behaviors (following precautions) that will decrease their actual vulnerability. Moreover, this seemingly contradictory stance may reflect two different dimensions of "controllability" as pointed out by Rachman (1978): the perceived ability to prevent the *occurrence* of the event, and the perceived ability to affect the *consequences* of the exposure. Because nurses cannot control the consequences (perceived as serious), the anticipatory fear may be greater even if they perceive control over the occurrence of the event (Rachman, 1978). Wiley et al.'s (1990) findings also suggest a somewhat contradictory stance in this regard. While 92% of the respondents "worry" about being exposed, 83% said that exposure is preventable by following the universal precautions.

2. Not Talking About Exposures

Nurses focus on preventing exposure. As I have pointed out, nurses maintain a sense of control by minimizing the possibility of exposure through a perceived ability to protect themselves. This is not surprising given that they perceive little control over the consequences of exposure. While they shared information about what precautions to take to prevent exposure, there appeared to be much less talk about the event of exposure itself. One possible interpretation of this silence may be denial or a perceived invulnerability to risk. As indicated previously, however, nurses do not perceive themselves as invincible. Alternatively, not talking about exposures may be seen as a collective strategy for avoiding the negative feelings such discussions may elicit. Nurses may avoid situations that remind them of their vulnerability. While the data here are inconclusive, nurses' comments on the silence give some beginning insight into the functions it may serve.

Although some nurses said that they discussed the dangers and risks inherent in caring for PWAs, others suggested that this topic was not discussed with them when they began caring for PWAs until they initiated it. D4 speculates that people did not openly talk about the dangers and risks because "if you didn't say it, it wouldn't happen". When actual exposures occur on the unit, this "front" breaks down and corroborates the underlying suppression of fear. As D4 says, "That's when things like that would come up. But between times we didn't [discuss it]". D6, while agreeing that the dangers and risks were not discussed, suggests that this is largely because people know about them, thereby implying that there is no need to discuss them:

> No, you were never told; nobody verbalized the dangers or the risks unless you yourself brought it up. Once you yourself brought it up then, oh yes, there was a lot of support and help around.

Although there were differing interpretations of why and how dangers and risks were discussed, there was more agreement on the relative lack of discussion about the issues of exposure and testing. Nurses did not appear to discuss, in any depth, the event of actually becoming exposed. D5 submits that this may be because nurses experience a "shared fate". Her comments suggest that the silence may be due not to a "negation of the problem" but rather may indicate an "avoidance" response:

> No, we don't talk about it, but yet I think we just all kind of know. We don't talk about it but sometimes we'll touch on it, but not get into the nitty-gritty...I don't know [why] ...I think we're all in the same boat, we're all...we could all be exposed at any time.

Moreover, when asked how they would deal with hypothetical exposures, several nurses' responses seem to indicate that exposures are not a very salient issue for them or, at least, not a topic to which they have given much thought. One nurse said, "That's a good question. I've never thought of exactly that--that's a good question". D8, who has cared for few PWAs, stated that she does not think about exposure. Indeed, she seemed ambivalent about how she would manage in terms of who to tell and what to do. Her response conveys a "thinking aloud" process:

> Well, I guess I would have to tell my significant other, wouldn't I ? I don't know. Yeah, I guess I'd probably tell--no, I wouldn't. No, I wouldn't say anything to anybody as long as it was showing up negative. No, I'd probably tell the significant other but I don't think I'd tell anybody else.

On the other hand, there are nurses who stated that they have thought about the consequences of exposure. One nurse goes so far as to suggest that "I think we all think about it". Perhaps what is most evident from these comments is that nurses do not readily discuss with others their feelings about exposure. Some may "think" about exposure privately but do not talk about it with others.

Nonattention to exposures may also be reflected in the type of information presented at Inservice Education offerings. D1, who has been exposed, expressed the need for more "anticipatory socialization" on how to cope with exposure:

> I've never seen anyone talk about the emotional aspects of AIDS. I mean, it's all statistics, it's all how you can get it or precautions to take, but never, once you have gotten a needlepoke, who do you turn to, what do you do? What do you think about? How do you cope?...I think there should be an inservice made just for that--where are support groups? How do you tell your partner...that you have this fear.

Of considerable interest is the silence surrounding testing. Most nurses were unaware of others who had been tested, and admitted that there is very little discussion about this. In fact, several nurses seemed quite unaware of the procedure to be followed in the event of exposure. This indicates that such information is not readily shared or "sought out". Consider D4's comments:

> None of us have ever--I don't think have ever been tested. Well, I shouldn't say none of us--I don't know if the other girls have. I did poke myself once, but I just dipped it in bleach and put it on the report--nobody ever once said to me that I should be tested. ***And they've never spoken of it since*** [emphasis mine].

D7, who has been exposed and tested, verifies the silence and expresses her own uncomfortableness with the topic:

> People don't really talk about it a lot, either. Even we at work don't. I don't know of anybody else that's been tested, and...I don't know if I'd feel comfortable asking anybody.

When probed further, she suggests her own silence may be a strategy to avoid stimulating her own feelings of fear:

> I don't know [why we don't]. I guess I'm afraid to ask people if they ever want to be tested. Like maybe, I don't like to bring it up because it brings up a lot of bad feelings for me. So if I don't talk about it I don't have to think about it.

She speculates that fear may also be the reason for others' silence:

> But I've never heard anybody else say if they have any desire to be tested or if they

> ever have. But I'd be curious to know...Maybe I'll get brave one day and ask people how they feel. It's scary--maybe that's why they don't talk about it.

She goes on to describe a situation where "talking about testing" did elicit fear. In this situation, a resident physician questioned whether nurses were tested regularly. They responded:

> "No...don't be silly; we take precautions". And he said, "oh, I wouldn't work here for any period of time". And I thought, that's a horrible thing to say...I was quite upset...'cause I was thinking, well, what do you know that we don't know?

This last statement is instructive in that it suggests an increased sense of uncertainty and vulnerability. The physician's comments elicit feelings that convey a decreased sense of control: Perhaps precautions are insufficient to protect us? Are there other ways of transmission? Does "being careful" really protect?

Nurses' comments suggest that while nurses may not deny the existence of risk they may, however, deny (or more accurately, avoid thinking about) the implications of risk (Weisman, 1972) in order to protect themselves from the emotional distress such thoughts may engender. While they may not negate the potential occurrence of exposures, they may engage in avoidance strategies whereby they deliberately refuse to talk or think about exposures (Lazarus & Folkman, 1984). In short, nurses may begin to form a definition of the risk as manageable, that is, a perception that exposures can be prevented by following precautions. Any stimulus that may shatter this social construction of control will increase nurses' perceived vulnerability and increase fear. Actual exposures on the unit are an obvious trigger to fear. Perhaps even discussion about the possibility of exposure, including testing, may elicit similar feelings. Nurses attempt to maintain a sense of control over their emotional well-being by avoiding the negative feelings that may be elicited by such discussions. They simply do not talk about exposures.

C. REDUCING THE SALIENCY OF RISK

Most nurses find that over time they focus less on risk. This may result from increased confidence in their ability to protect themselves. Precautions become "ingrained" with less need to "think" about them, thus freeing the nurse to engage in other activities. D2 says it this way:

> It's not even a conscious thought about I'm at risk here, or what should I do...The isolation precautions are so ingrained that you don't think about it.

Engaging in other activities will, in all likelihood, facilitate moving risk from "figure" to "ground". That is, the threat of AIDS is bracketed from a more conscious awareness and perceived as a distant rather than an immediate threat. For some nurses, however, decreased risk saliency is also achieved with a more deliberate effort. That is, some nurses "work at" distancing from the threat of AIDS.

1. Not Thinking About All the Possibilities

One strategy mentioned by several nurses was not thinking about every eventuality that may put them at risk. Dwelling on all possibilities was considered harmful, unnecessary, and perhaps even impossible. A "cognitive rehearsal" of all sources of danger is overwhelming, but a belief that one will cope with situations as they arise is perceived to be more manageable. Consider D7's comments:

> And I suppose there are a million things that us nurses could worry about, but you can't take the time to worry about everything...I suppose I could always be thinking, well, what if this happened, what if that happened, but...just take it one incident at a time and have your little gloves. Try and keep a calm frame of mind.

For D2, a belief that unusual, nonpreventable events are very unlikely to occur allow her to "not think about it". She describes how she redefined a "dangerous" situation to maintain her sense of control over risk:

> I guess the way I handled it is to isolate that as a condition that isn't going to happen very often. I'd put it outside the normal range of circumstances. I just thought, this isn't going to happen very often, and so it's okay as a one time thing, nothing happened...I guess there's always some freak thing that could happen, but I don't find that I think about that.

Similarly, another nurse minimizes the likelihood of accidental exposures due to her own mistakes, thereby sustaining her belief that in most instances "being careful protects":

> D11: I suppose there's always the likelihood of getting exposed. You can always make a mistake. But I don't think it's a big likelihood at all.

Another nurse describes the futility of trying to reduce the uncertainty of past and future events over which she perceives no control, preferring to focus instead on that which can be controlled. Moreover, "living it as it happens" is perceived to be more manageable:

> D10: I mean, it's okay to think, three years into my career of nursing I could've been exposed. And it's not something I dwell on. I think well, okay, but now you have this information and so use it...I have thought what if [I would be exposed]? And I decided, I would have to live that as it happened. I don't want to dwell and spend a lot of time thinking, what if I sero-convert? I think that's detrimental...And you might as well give up nursing if you're going to run around worrying about getting AIDS from your patients. And I think you could become very paranoid if you allowed yourself to be.

By acknowledging a lack of control over certain events, she controls her emotional health by "not worrying".

Not thinking about all the possibilities seems to arise from a belief that some situations are out of one's control. In addition, however, it also implies that dwelling on all the "controllable" events may even be too taxing to accept and hence may decrease a "sense" of control. On the other hand, faith in one's ability to cope with situations as they arise is seen as more manageable and tension reducing. An overwhelming array of possibilities seems to overload one's ability to cope. In some sense, nurses develop a "bounded rationality" (Simon, 1955) to deal with the ever present "chronic uneasiness of risk" (Mayer & Rosenblatt, 1975). Risk analysts also have stated that refusing to take all danger into account is not behaving "irrationally " (Douglas & Wildavsky, 1982). For some nurses, this includes disregarding low probability risk estimates over which they have no control (Tversky & Kahneman, 1974). Not thinking about all the possibilities increases nurses' feelings of control because it reduces the emotional distress such thinking would elicit. That nurses do not think of all possibilities is also suggestive of a "discriminate vigilance" whereby they attend to danger but also reassure themselves that accidental exposure is unlikely, and if unforeseen events do occur then they will hopefully manage (Janis, 1967). In sum, not thinking about all the possibilities may reflect a "time-honored principle of effective coping: knowing when to appraise a situation as uncontrollable and hence abandon efforts directed at altering that situation and turn to emotion-focused processes to tolerate and accept the situation" (Folkman, 1984, p. 849).

2. "Putting It in the Back of Your Mind"

One nurse distances herself from the threat by literally substituting another illness for AIDS. She too suggests that dwelling on the risk is not only harmful but probably unnecessary, and she makes a deliberate attempt, although not always successfully, to "forget they have AIDS":

> D13: You're still frightened, but...you really can't dwell on that. And there's probably really no reason to be dwelling on it...I think if I let it bother me that much, I'd become psychotic. Like I'd probably become so tensed out about it that I'd probably have to quit the unit I was working on so...I just don't really let it get to me...and I usually succeed. [How?] I'd like to say try to forget that they have AIDS and just treat them as a cancer patient. You can do that to some degree--put the AIDS in the back of your mind, but you know, it's still there a bit. I kind of blot out the AIDS.

An indication of the "distancing" that is used is revealed when the strategy breaks down. This is most clearly demonstrated when nurses are faced with actual exposures on the unit. At such times, the saliency of risk is paramount, as one is made to "face reality" and is no longer able to "put in the back of one's mind".

3. "Looking Past the Disease"

This strategy involves bracketing the disease by redefining the person with AIDS so that disease is no longer the predominant characteristic of the person. The patient is no longer viewed as an "object of risk" but as a person with unique qualities and needs. Again, this redefining of the person occurs as nurses work with patients and get to know them. Moreover, as nurses become comfortable with the risk, they are freed up to focus on other things. As indicated previously, many nurses commented on how their patient care over time changed from a focus on safety for themselves to a focus on the patient. Such patient-centered care may decrease fear because it "distracts" from the issue of risk, thereby diminishing its salience. Concentrating on a task, particularly if it is seen as part of one's responsibility to others, may be valuable in reducing fear because it reduces the full impact of the fearful stimulus, even though it has no influence on the probability of the event occurring (Rachman, 1978). For some nurses, however, "looking past the disease" is also a more deliberate process. Particularly during their early encounters with PWAs, nurses' efforts to decrease saliency may be more intentional. D5 provides this advice to other nurses based on her own experience:

> It's okay to be scared but put your gloves on and if you want to put the gown on, go ahead. But if you can see beyond the disease and look at the person, it makes things a lot better...But just try not to see the person as...just try not to see AIDS, but try and see Mr. So and So. There is a person there. And don't just say "AIDS".

She clarifies further:

> If you look behind or beyond the disease and look at the person, and, not think every minute that you're in the room, oh my God, this patient has AIDS, AIDS, AIDS. If you're not hearing that in the back of your mind and if you're doing your work just as if you would with someone who is in with Crohn's or something that was not contagious, if you're dealing with it in that respect.

Similarly, D13 suggests that focusing on the patient's personality may decrease fear:

> Get to know the patients, 'cause despite what they have, despite their lifestyle, a lot of them are very nice. And really interesting people...talking to them, asking them about their family...if you get to know the person as more of a person rather than a patient, you can relate to them a lot better.

The social context of the unit may be influential in helping nurses to see beyond the disease. An upward social comparison with those perceived to be coping better than oneself has been found to instill motivation (Taylor, 1983). D5 comments how comparing herself to her coworkers gave her the incentive and confidence that she too could reach their level of comfort:

> And just to watch interactions of people who have AIDS with other staff members, that helped too. It just showed me that other people, knowing all that they do about the disease, are able to look past the disease to the individual. And I thought that I had it within me to do that too.

The consequences of being able to do so are perceived to be a feeling of comfort about the risk, an "emotional certainty" that one is safe:

> D5: The more time that you spend with the patients and look past the disease, and the more education that you have about the disease, and the ways that you could contract it, I think...eventually that not only is here in your mind, but it goes down to your heart. It's more just a gut feeling.

In sum, "looking past the disease" may be viewed as a strategy that changes the emphasis from caring for a diseased person who could give one AIDS to caring for someone who is, first and foremost, a "person" and, secondarily, has AIDS.

4. "Getting Away From It"

In contrast to the above cognitive strategies designed to decrease the saliency of risk, nurses also used strategies that deployed attention from the source of distress. Most nurses talked about "distancing" themselves from their work in general by separating their work lives from their home lives. Because the feelings and thoughts they attempt to distance from involve much more than the risk of contagion (usually the emotional involvement around the death of patients), this distancing may be an important factor in preventing burnout, which can lead to a questioning of the value of one's work in the face of attendant risks. That is, work demands can lead to burnout and thereby increase the saliency of risk. D7, who has experienced burnout, explains:

> But I try not to think about it at home and be constantly thinking about work because that's not good for anybody. So I try and separate them a little. I think probably that's how everybody handles it...kind of trying to leave work at work, even though it's hard...Sometimes I do take a statutory holiday or a vacation day and do something totally different from work. And then it feels better to go back. But when you do a lot of overtime and you're just always there, sometimes feelings do crop up, like why am I doing this.

She goes on to emphasize the importance of distancing from the situation to prevent "dwelling on the risk":

> So for any other nurse that was exposed or was even starting to worry...I would say, take a break, get away from work, have someone to talk to.

Others also comment on the importance of separating work and home, in spite of the difficulty in doing so:

> D5: I try to leave work at work when I come home, 'cause I think that's really important because we do have a lot of long-standing people who are dying or whatever. I think if I brought that home, I would be really depressed with it.

> D6: I guess when you go home and you've got your family and you kind of...try not to think about it. But it's hard. And I'm going to cry any minute.

Another nurse supports the assertion of others (Govoni, 1988) that it is often difficult to gain "recuperative distance" outside the work environment because of the pervasiveness of the media attention to AIDS:

> D4: I went on a cruise in November with my mom, and I didn't hear the word [AIDS] once in two weeks, and it was sort of like, hey, this is sort of nice...It was nice to get away...'cause you read it in the paper, you read it--like it's in every magazine, it seems, and...work should be work, and when you go home you shouldn't be working anymore. And sometimes it's hard to get away from.

Other factors that facilitate "distancing" are related to the way work is structured on the unit. For those nurses who work on units where patients are not admitted routinely, there is of course the "break" of time between patient admissions. Other nurses commented on the practice of changing assignments routinely so that nurses are not caring for "heavy" patients on several consecutive days. Finally, nurses appear to "share" the work with each other and recognize when coworkers may need a break due to other than work demands.

D. ACCEPTING RISK

While it may be said that in some sense all nurses who care for PWAs "accept" the risk as a "normal" part of their work, there are some nurses who explicitly stated that risk is an inevitable part of their work that they are willing to accept. By appraising risk as inevitable or "normal", nurses control its intrusiveness, because it is no longer perceived as unfamiliar or unusual. For one nurse, a perception of the ubiquitous nature of scientific uncertainty makes it necessary and perhaps easier to accept the risk of caring for PWAs, because all nurses, even those not caring for PWAs, are exposed to risk of some kind. Her comments reflect how the "spreading of risk" (Hughes, 1958; Haas, 1977) normalizes the medical uncertainty associated with all diseases:

> D5: It is a disease that they don't know everything about, and I think that's where it's a bit scary...Maybe they will find out that those people who are looking after AIDS patients are getting AIDS. So far the research hasn't showed that, and I'm not afraid of that, but--you never know with a disease like this. Or with cancer or anything. So many people are saying that if you work with chemotherapy drugs--then you could get cancer too. *So I think we're all at risk for whatever we do in whatever job* [emphasis mine].

She goes on to say, "We could all be exposed at any time...we are all in the same boat". Such a feeling of "shared fate" or "universal vulnerability" (Perloff, 1983) that involves seeing both oneself and others as equally vulnerable to a negative event has been associated with decreased anxiety. One interpretation of these findings may be that causal attribution to external rather than internal causes is less threatening to the self-image, thereby making it easier to maintain an optimal sense of vulnerability and personal control (Perloff, 1983). A body of research on affiliation (Schachter, 1959) suggests that victims of negative events may derive comfort from knowing or being with others who are in the "same boat" (Coates & Winston, 1983).

In addition to believing that risk is unavoidable, other nurses "get used to it" because it becomes a part of their work life. In this sense, the intrusiveness of risk is decreased by rendering it more predictable:

> D6: You just live day by day with your precautions. It's part of you and you know they are HIV, you know the precautions so you do it, so you live with it. It becomes part of you.

> D7: I don't feel so anxious anymore about work. It's just...a part of life.

Still others focus on doing what they can, and "accept" the rest:

> D4: I'll always be a little bit afraid of AIDS. I don't think I'll ever get rid of it.

> D7: I feel comfortable with [the precautions]. I can't think of anything more that we could be doing, other than if we were all to wear masks all the time, but that's silly considering there's a whole population of people out there.

While nurses accept living with the risk on a day to day basis, few, however, seem to accept the *consequences* of the risk. They tend to think, instead, that should they be confronted with situations where they cannot predict exposure or prepare and protect themselves in advance, they will "take it as it comes" and hope for the best. Only one nurse had a more fatalistic attitude in terms of acknowledging the consequences of risk. In contrast to other nurses, D10 states that if she seroconverts "it was meant to be":

> [In the event of exposure] I'd probably have some moments of going extremely crazy. I think once I calmed down I would look at the people around me and the experience I've had with all of my patients and realize that this is not the end of the world. I can live very well being HIV positive. And with proper health, nutrition, and exercise, and positive thinking, it may be a long time, or it may be never, that I go on to develop AIDS. In some ways, I guess I'm a fatalist; I mean, if it was meant to be, it'll happen. And because of how I view death and the life after, I guess because of my spirituality; it's not...it would not be the end of the world that afternoon when I found out.

Paradoxically, it is her ability to maintain a "sense of control" should she convert that may help her to accept the consequences of exposure and to adopt a more fatalistic attitude. Moreover, the meaning she imputes to the ultimate consequence of risk (death) may help her to adopt a more fatalistic attitude to exposures. In other words, her fatalistic attitude is influenced by her ability to maintain a sense of control over the consequences of her inability to maintain actual control over exposure. Interestingly, her fatalism relates to preventing exposure, while her sense of control relates to managing the consequences of exposure. Perceiving control over the consequences of risk even when its occurrence is not preventable makes the risk less aversive (Slovic et al., 1980; Rachman, 1978).

In summary, the nurses who "accept" risk as normal or inevitable may be seen as having "incorporated" the risk into their daily nursing world. The orientation that risk is part of life may, in turn, minimize its saliency. Because it is routine and "normal", it is no longer uppermost in one's mind. By normalizing risk, nurses maintain a sense of control over its intrusiveness. Risk does not control them.

E. DISCONFIRMATIONS IN THE CONSTRUCTION OF CONTROL

Over time, nurses begin to form a comprehensible and manageable view of risk. This definition of risk, however, is not secure for all time. Situational factors change how nurses perceive the risk and also how they view their work. This changed risk perception may arouse a renewed sense of fear. Moreover, how nurses define a situation in terms of risk potential does not always depend on the objective risk presented. That is, the situation may not change in terms of the potential for exposure, yet nurses may experience more fear. Nurses identified several cues that aroused fear. These cues, however, all have in common their ability to remind nurses of uncertainty, to decrease their feelings of control, and thereby to increase their feelings of vulnerability. In some sense, these cues can be seen as contingencies that "disrupt the continuity of previous coping mechanisms" (Coombs & Goldman, 1973; Taylor, 1983). That is, the cues may bring to the forefront a fear that is usually in the distance. In other words, "the reduction of distress that can be achieved through distancing or denial can be fragile. An unexpected cue from the environment can reintegrate the full significance of the encounter" (Folkman & Lazarus, 1988, p. 313). Efforts to distance from the risk can be undermined by cues from within the person or from the situation. In a similar way, "illusions of decreased vulnerability", while adaptive, are also vulnerable to disconfirmation (Taylor, 1983).

1. Situations Directly Related to Risk

For some nurses who have been exposed, any HIV-infected patient may become associated with the fear experienced by the previous exposure. D1 describes this "conditioning" in her interaction with an AIDS patient following her needlestick injury:

> And I went in [to the patient] and I got the feeling. It just came over me and I thought I'd been okay. But I just got kind of eerie...it just brought over the same fears that I went through, and I just don't like dealing with it anymore, 'cause I had such a hard time dealing with it that I just didn't want to be reminded.

She quotes one of her colleagues who also had a needlestick injury:

> She says I just can't [go in the room]. And I knew exactly what she meant. I said I know. And she said...I get over it and then...when I saw him I just froze...so, it brings back to her that very night [she got exposed].

As already indicated, "near-misses" can also arouse fear because they disrupt a definition of risk as manageable. For D4, any situation that was unpredictable and for which she was unprepared increased her fear:

> You're going along and thinking you're all fine...Like I go to do something and I think whoaa. Then you realize that you can get it again. [What brings on these feelings?] If somebody threw up, like all of a sudden, just viciously and all over. It's a little scary...It's any episode where you weren't expecting it, you weren't prepared, and you might've had a chance of getting fluids on you. Or if you went to empty a urinal and it splashed up, or it splashed back when you...clean the urinals. And all of a sudden it'll just spurt in there ninety miles an hour, and the next thing you know, you're wearing half the stuff...it makes me mad that the equipment...but then I'll think, damn! Like do I have an open cut somewhere or whatever. And then you'll think about it again.

She goes on to point out that even though she has formed what to her is a comprehensible understanding of what puts her at risk, a stimulus such as a patient offering her food can disrupt this "understanding".

Hearing about others' exposures on the unit may stimulate fear. D13 provides a clear example of the fragile nature of the feeling of safety that is achieved by distancing. She explains how others' exposures increased her own feelings of vulnerability:

> People actually feel really bad when someone comes in contact with it. I guess in a way you're kind of [forced] to think, well, that could've been me. And the thought of it's really frightening...It's sort of after an incident happens, it kind of makes you face reality...And like I've been saying all along, I just sort of put it in the back of my mind. But then, you're sort of up front with it.

Near-misses and others' actual exposures may be seen as incidents having "signal value" because they send a message that there may indeed be a reason for concern, a "possible breakdown in the safety control system" (Slovic et al., 1980; Freudenburg, 1988). Slovic et al. (1980) suggest that a "rare" catastrophic event in which only a few people are involved may increase the perception of its reoccurrence, whereas accidents that occur as part of a familiar, well-understood and self-limiting process may have little impact on perceived risk. The victimization literature also points out that indirect experience in others' exposures or one's own "close call" increases one's own vulnerability (Janis, 1951/1982; Tyler, 1980). Perloff (1983) found that having a friend or family member who had been victimized heightened the individual's perception of his or her own vulnerability, whereas lack of such indirect experience was associated with perceptions of invulnerability. A cognitive explanation suggests that indirect experiences increase one's own vulnerability by making "available" the possibility of one's own exposure by increasing its saliency. Moreover, the impact of seeing someone exposed *recently* heightens one's own perceived probability of becoming exposed (Tversky & Kahneman, 1974). Additionally, the salience of the event increases because of its perceived seriousness. A more motivational explanation suggests that others' exposures make it harder to maintain the "illusion" that one is not at risk because such exposures destroy a sense of security and predictability (Perloff, 1983; Janis, 1951/1982). Janis found that those exposed to "near-miss" air raids or whose families or close friends experienced loss or injury during air attacks experienced greater fear. He suggests that in such situations "latent anticipatory fear" is reinforced because the feeling of being unprotected from danger breaks down feelings of invulnerability which had previously been effective (p. 50).

2. Situations Not Directly Related to Risk

Nurses described how their own personal relevances and life contexts influence risk perception. Cues to fear arose from both work and nonwork demands. For example, D5 describes how her husband's insecurities may trigger her own feelings of uncertainty and how she consciously reassures herself of minimal risk when these insecure feelings surface:

> I still think about it...sometimes I'm still scared...[what particularly brings this on?] I don't know...Maybe something that my husband says--you know, his insecurities, maybe, at some point just bring up those few insecurities...on my part...and then I think, oh, why are you even thinking that?...you've dealt with this many times before and you don't have to be worried and--you just think about what you've learnt.

D7 also suggests that personal feelings influence how she perceives risk. When asked what triggers her feelings of fear, she states:

> If I'm feeling a little down or depressed, then I do start thinking about it again. That's when I know I need a break.

D9 also relates how her personal situation and feelings influence her perception of risk. She mentions, in particular, her family:

> Full well I know that you can't get AIDS through just social contact, touching and such. But I still have some feelings [of fear] sometimes with some patients. It just depends how you're feeling on a certain day. You may be concerned about your little one at home or something, and then you think, gee, I hope that I would never contract something and bring it home. And that may put up a little bit more of a barrier when you go in the room, just how you're feeling on a certain day...Certain

> days you're a little bit more susceptible...It just depends how I'm feeling. I guess how protective you are of yourself...if you're having a bad time at home or--there's certain other patients on the unit.

The changing nature of perceptions may imply a need to "work at" maintaining a feeling of safety. One nurse suggests that because emotions fluctuate daily, some effort may be needed to maintain a definition of minimal risk:

> D5: Emotionally, your emotions go up and down on a day-to-day basis. Sometimes you feel more comfortable than the next day...I think it has to do with just having a bad day or what's happening at home or just forgetting.

In sum, this section demonstrates the situational nature of coping (Lazarus & Folkman, 1984; Pearlin & Schooler, 1978; Brown & Harris, 1978). Moreover, it suggests the precarious nature of the socially constructed definition of risk and its manageability. Other researchers have also found that even though individuals may become "habituated" to risk, an increased sensitization to fear may occur if the individual is tired, "burned out", or has experienced "near-miss" events (Rachman, 1978; Janis, 1951/1982). Janis (1951/1982), in the following comment, lends support to the ability of nonrisk situations to elicit fear:

> When intense fear reactions are acquired, they are not at all limited to situations containing specific cues which were temporally contiguous with the terrifying stimuli, but are manifested in a variety of situations which do not necessarily resemble the original danger episode...complex symbolic processes may be involved. Thoughts, expectations, and fantasies play an important role in determining the amount of anxiety experienced, even without any exposure to real danger (p. 49).

This is in keeping with the transactional framework of coping (Lazarus & Folkman, 1984) that emphasizes that context is critical. That is, person and situation variables together shape coping efforts. Moreover, events occur in the context of other events.

F. SUMMARY

I have discussed the nurses' use of four basic strategies to decrease their feelings of vulnerability to risk: reassuring self of minimal risk, denying risk, reducing the saliency of risk, and accepting risk. These strategies involved changing the significance of the event in terms of its ability to cause harm and distancing from the threat. Although these strategies were discussed separately to emphasize their distinctiveness, clearly, they are interrelated. For example, for some nurses, reassuring oneself of minimal risk facilitated "not thinking about all the possibilities", thereby reducing the saliency of risk. Avoidant strategies may have helped to maintain the belief that "being careful protects", thereby minimizing risk. On the other hand, minimizing risk may have led to a "denial" of vulnerability. Accepting risk by reappraising it as "normal" may reduce its saliency; or alternatively, reducing the saliency of risk may facilitate its acceptance. Furthermore, the cognitive strategies are related to the behavioral strategies designed to reduce the risk of exposure. More specifically, the strategies of becoming informed, monitoring risk, and taking precautions lead to a cognitive interpretation of the effectiveness of these strategies, that is , that "being careful protects".

In terms of their function in maintaining a sense of control, these strategies provide control over the emotions generated by an anticipation of risk. They reduce feelings of vulnerability, thereby reducing fear. A sense of invulnerability is most strongly related to the cognition that "being careful protects". Cognitive strategies provide confidence that nurses can protect themselves as well as greater assurance of who and what is dangerous. Furthermore, distancing strategies protect nurses from thinking about that which they may not be able to control. This "construction" of control is enhanced by actual control when precautions are effective in keeping nurses safe.

One of the most pertinent findings is the need to achieve a "balance of vigilance and reassurance" if a sense of control is to be achieved. The perceived potential for actual control may lead to a heightened vigilance that does not necessarily lead to a feeling of being in control of risk. On the other hand, the interrelationship of the problem-focused and emotion-focused strategies results in a comfort level that leaves nurses feeling "in control" of risk, rather than risk controlling them.

While achieving a sense of control over the occurrence of exposure (and thereby its ability to cause harm) results in a cognition that risk is manageable, an additional factor in risk acceptability is a perception that risk is meaningful and worthwhile. This is the focus of the following chapter.

VII. MAKING RISK MEANINGFUL: JUSTIFYING RISK

Why, in the face of risk, do nurses care for PWAs? Thus far, I have discussed how nurses work to make risk "manageable" by reducing the risk through their efforts to prevent exposure and by attaining a degree of emotional comfort living with risk through their efforts to manage their fears. This, however, does not provide the answer to what *motivates* nurses to work at making risk manageable. Just as nurses work at making risk manageable, so they work at making it "meaningful". Nurses come to value their work. In fact, they come to see their work as both satisfying and worthwhile. Their perceptions of their work are related to their professional commitment to care as well as to the work satisfaction they derive from the relationships they develop with their patients. In this chapter, I will discuss how nurses come to view their work with patients as they attempt to impute meaning in the face of risk. First, I will discuss nurses' perceptions of patients, followed by a discussion of sources of work satisfaction. Finally, I will address the nurses' professional commitment as a factor in making work worthwhile and meaningful.

A. PERCEPTION OF PATIENT

Most of the nurses interviewed came to view their work not only as valuable but also as "enjoyable" despite its physically and emotionally demanding nature. Nurses' perceptions of their work were very much influenced by their perceptions of, and attitudes toward, the patients for whom they cared and the relationships they developed with them. For most nurses, perceptions changed over time and involved a "redefining" of their perceptions of homosexual men with AIDS.

1. "AIDS and Homosexuality - A Package"

For all nurses, their first encounters with AIDS involved caring for homosexual men. Several nurses commented on the close relationship between AIDS and homosexuality as perceived by the public and indeed by themselves. To care for PWAs was to deal with one's own feelings about homosexuality. In some instances, it seemed that nurses were unable to articulate the distinction. In describing her initial fear of caring for PWAs, D4 suggests she was unsure about even the source of her fear:

> I guess because they're homosexuals, you wondered if your feelings were because of *who* they were or *what* they have...and so you have to decide within yourself which reason it is. Is it the disease or the people? I was sort of feeling a little guilty as well because I was thinking, am I acting like this because these people are gay?

D6 further describes the close association between AIDS and homosexuality:

> You can't separate them [AIDS and homosexuality]. They're clumped together somehow or other and you can't separate them so that you can deal with one, so that you can deal with the other. It's like cells all multiplying, you know they are all clumped and you've got to separate them.

The issue of homosexuality not only imposed an additional demand to be managed but also for some nurses appeared to fuel a resistance to caring for patients. D2 describes her initial resistance in terms of both the concern about risk and the "type" of people:

> [My initial concern] was more than a concern about the disease. It was also categorizing a group of people as well as concern about the disease. I was quite resistant to them and ...probably actually a bit hostile. I probably even thought that some of this was their own fault.

D3 explains how the combination of fear of contagion and repulsion of the lifestyle resulted in increased stress:

> And so between lack of knowledge and fear, and then knowing the lifestyle, which I...just was repulsed by, because to leave the natural use of the woman to do that which is unnatural just seemed so...at the bottom of the ladder. And to think that it was practised by intelligent educated people. I guess the whole thing together...was not pleasant for me at all.

The close association of risk of physical contagion and risk of moral contagion is brought out most strikingly by one nurse who sustained a needlestick injury, "It brought on fears of dying, and contaminated, and possessed...I felt infected and dirty and just awful things." The association of AIDS and homosexuality in determining attitudes toward PWAs has been the subject of much research (see Chapter II).

2. Patient as "Other"

Initially, many nurses perceived patients as different or as "outsiders" (Becker, 1963), whose behavior they could not understand or to whom they had difficulty relating, largely as a result of their own upbringing and lifestyle. Many nurses commented that they did not personally know any gay men. Some admitted that their image of homosexuals was the stereotype projected by the public media, while others said that they had no preconceived ideas. Initially, however, they tended to focus on the way patients were different and the label of "homosexual" tended to define the person. This view of patients as different took a variety of forms, ranging from an evaluative or moral stance toward homosexuals to a judgment of "not normal" or, at the very least, "not understandable":

> D4: When you first think of a homosexual, you think of somebody different from you, very different than you are. In a sense perverted. You think all these things...I don't know if I thought they were wrong completely...you feel it's not natural...But once you get to know them, they're not like that at all.
>
> D2: Their lifestyles were so foreign to my own background. I have probably led a very sheltered life, and when you look at the progress notes or the histories of some of these patients...like I couldn't relate, I couldn't identify with anything that they had done, and it was just totally foreign, there was no common ground...at first I didn't see them as people for that reason.
>
> D7: It is different...I never really had any prejudices towards them but, I just like everybody else, kind of thinking, well, is this normal or not?

These comments convey that seeing patients as different may comprise what Scambler (1984) has termed "ontological deficiency". Individuals may pose a threat to others by their failure to conform to cultural norms about what people should "be", regardless of their acts. Goffman (1963) also refers to this form of deviance as breaking the "norms of identity or being". That is, homosexuals may be condemned not only for misdemeanors they commit but also because they are judged to be "essentially, an imperfect being". While it is true that such labels as homosexual also carry strong connotations of moral failure (as will be pointed out shortly), Scambler (1984) maintains that they are secondary to those of ontological deficiency.

A perception of patients as outsiders and even as objects of curiosity may have influenced viewing them as "objects" of risk, as "something" which threatens me with infection rather than as "someone" (like me) with unique qualities and needs. Put another way, the distance from "different" to "dangerous" may be short (Murray, 1990).

3. Patient as a Person

In spite of their initial impressions, most nurses come to see and accept patients as "persons" and develop very accepting relationships with them. Nurses adopted four major types of strategies in the process of redefining the patient. Some of these occurred as a consequence of nurses working with patients while others were adopted with more deliberate forethought. All, however, resulted from "getting to know the patient" and involved undoing the "master status" (Becker, 1963) that homosexuality and AIDS confer on the patient. In short, nurses seek to "delabel" the patient (Bogdan & Taylor, 1987).

a. Reducing differentness. As nurses get to know the patients, nurses tend to deemphasize patients' negative and dissimilar aspects, emphasizing instead the similarities that patients share with the nurses and with other patients. Previous stereotypes are shattered as patients come to be seen as more "normal" and as possessing characteristics that may even be considered as more virtuous than that of other "normals" (Schwartz, 1988; Bogdan & Taylor, 1987). Moreover, an important part of seeing similarity is appreciating patients' "individuality" (Bogdan & Taylor, 1987). In contrast, "master status" embodies the concept of homogeneity, in the sense that differences *among* outsiders are ignored even though differences *from* "normals" are emphasized (Higgins, 1980). Instead of the "categorizing" process implicit in their early interactions with patients, nurses now see patients as unique individuals (Jones et al., 1984):

> D4: The AIDS patients themselves are...kind, caring, very nice...nice people...and that's why I stayed [on the unit]...I like them for who they are. They're very considerate...caring--more free with their emotions and--more in tune with yours. And are more liable to give you compliments and be in tune with your feelings than most men are. So in that way they're very easy to look after...I think they would make terrific friends...Ninety-nine percent of them, I would pick as friends...You couldn't find more considerate, fine people...Some of them are truly exceptional people...They all seem to have their own little gift.

> D6: These people are extremely intelligent. Very well educated. Thoughtful, caring, very conscious of [the disease] they've got.

> D7: And now, I don't see them as different than any other people. They're people from all walks of life. We've had patients who have been prostitutes, we had one priest...I don't look at it as worse than anybody else or better than anybody else...a loving couple is a loving couple.

For some nurses, seeing patients as part of a family also helped in seeing them as "similar":

> D4: They're still nice people. And I think getting to know their moms and dads, their brothers and sisters. You realize they're part of a family unit.

Similarly, D8 emphasizes the "normality" of the patients for whom she cares:

> He's just a normal guy, he's got a normal job, he's got a normal family, he's just like any other Joe off the street. Once you get past all the media and past everything, they're just a person. And it's just another patient in with another disease. And you're just there to do your job.

These comments suggest that a "contradiction of attributes" (Hughes, 1945; Davis, 1961) may help to dispel stereotypes. A discordance between "normal" attributes and the "handicap" has usually been viewed as a threat to interaction (Davis, 1961). The above examples, however, suggest that a juxtaposition of divergent attributes, such as priest/AIDS and gay/monogamous, may enhance perceptions of similarity, thereby disconfirming stereotypes.

b. Reducing saliency of "lifestyle". In addition to reducing differentness by seeking out similarities, some nurses came to accept the patient as a person by consciously reducing the saliency of the "differentness" or "mark" (Jones et al., 1984). The homosexual lifestyle of the patient thus becomes less central to the perception of the patient. For several nurses, this involved separating the "person" from that "behavior" which they found difficult to accept. This process was often facilitated by appealing to the nurses' own personal situations and beliefs. For example, one nurse described how she was able to accept the patient even though she abhorred his lifestyle by appealing to Christ's example of loving the sinner but not the sin. Moreover, she feels it has become easier to do this because in her own personal life she has had to learn to accept persons whose behaviors she could not condone. Similarly, D4 compares accepting the person but not his behavior, using the analogy of her children:

> Being a homosexual is really not the main part about them. As people I accept them...I don't agree with all their actions. But then I don't agree with all the actions that my kids do, either, but I still love my kids. But I can accept them for who they are, as the person that they are. All their actions, no, I can't because to me it still isn't the normal way. But that's their way of life. And I'm not going to get into that part...I try and just not judge them...they're people first and their lifestyle is...I try and sort of keep it a bit separate, 'cause I can't honestly fully accept it.

Other nurses reduce the saliency of lifestyle by "reframing" the lifestyle to make it more acceptable. This involved selectively emphasizing those aspects that are more acceptable. These aspects were often perceived to be similar to the nurses' own situations. In this way, nurses "destigmatize" the patients by increasing the "valence" (favorability) of the attribute once considered "unacceptable" (Jones et al., 1984). The following comments show how nurses deemphasize the sexual aspect of patients' relationships by focusing instead on the caring component of homosexual relationships:

> D5: I don't think of the sexual part all the time, I just think of the person as an individual or as a professional and in a caring relationship, and that relationship just happens to be with another man. I just try and think that, well, they have a relationship [like] I do with my husband; you know, that he's there when I come home at night, and someone to talk to, and someone to cry on or whatever. And I try and think of...the relationship more than what they do in the bedroom, 'cause that's really none of my business.

> D6: They have a partner, they become very attached. Some even get married. And some are in a monogamous relationship, and have stayed that way for many, many years. That's their private life and it's none of my business and it's just unfortunate because of the way they live that life, they are open to HIV.

> D7: But I have to say some of them are the most loving couples I've ever seen in my life. And loyal. And that's what's important.

For still others, the patient's lifestyle becomes irrelevant as the patient's immediate needs assume heightened significance:

> D2: [Seeing the patient as a person] means that the diagnosis is totally irrelevant. I'm just looking after them and trying to meet their needs, whatever they may be. I would treat them the same as I treat anybody else regardless of what the diagnosis is, and just try and see all aspects of--like a really holistic approach to the person...I don't think I ever dealt with it per se; like I didn't go, well, they're not responsible, but it wasn't an issue anymore. When you saw them and what they were going through, that was the issue. The issue wasn't why have they got it, it was just..this is here and now, and this is what they're dealing with.

Only three nurses stated that they were completely comfortable with the patients' lifestyles initially. However, four nurses became accepting of the patients and their lifestyle as they continued to work with patients. Two nurses continued to see the person *in terms of* his lifestyle. It appeared that for those nurses who could not accept the patient's lifestyle, it was necessary to separate "being" from "doing" if they were to become comfortable in caring for patients.

Becoming comfortable with homosexuality may be perceived as an effort to increase control over negative (and often ambivalent) feelings. By accepting the patient as a person, "lifestyle" is no longer the dominant focus of the nurse-patient interaction. In coping parlance, changing the significance of "lifestyle" by reducing its saliency increases patient acceptance, which in turn may help nurses to accept risk. Put another way, the patient's homosexuality is reinterpreted to be less threatening or problematic and, therefore, elicits less intense undesirable affect.

c. Changing attribution of responsibility. An important aspect of the nurse's perception of the patient is the responsibility attributed to the patient for his disease and his homosexuality. Several nurses pointed out that their attributions changed after they got to know the patients. Although accepting the patient as a person was not contingent on attribution of responsibility, for some nurses a situational attribution that did not hold the individual responsible helped them to accept the patient. D4 explains:

> And when you talk to them, too, I don't think these people had a choice of what they are. I've had them say to me, things like, if I really am honest with myself, I knew when I was five that I was different. I didn't know what and I didn't accept it. And some of them had been married...And I really don't think it's a choice that they've made...and say, no, I'm going to be a gay fellow...And I think that has helped me. And before I used to think that they did. Like you chose to be [homosexual].

Another nurse describes how situational attribution leads to a closer identification with the patient because "we're all vulnerable":

> D6: And I think how I got beyond the homosexual thing was getting to know the two people, the two partners and...in thinking and talking with them, you learn...there but for the grace of God go I. They don't want to be a homosexual. They don't want--to be an AIDS victim. They don't ask for it. It's an unfortunate thing that happens.

Similarly, another nurse states that caring for homosexual men has made her realize that "anyone can be in anyone else's shoes, given the right circumstance". This recognition that "we are all similar in our vulnerability" has made her more accepting. In this regard, the social psychological literature provides evidence that feelings of similarity to a victim reduce blaming responses (Chaiken & Darley, 1973).

On the other hand, some nurses do see patients as more responsible for choosing their "lifestyle" but still accept the patient as a person largely because they are able to separate the patient from his behavior. In contrast, one nurse's ambivalence toward PWAs seems to be partially attributed to her feelings about their responsibility for developing AIDS. While she does not impute responsibility directly, her emphasis on "promiscuous" behavior connotes a perception that the patient is "irresponsible". In contrast to those nurses who perceive a "universal vulnerability" with patients, she underlines the "dissimilarity" of the patient's behavior with her own beliefs:

> D13: He's a nice person, but...in terms of the reason why he has AIDS, it bothers me. Just because of the way I've been brought up and stuff...It really bothers me. I don't think it's right. And that goes back to my religious upbringing. And I guess this is the 80's...so maybe I should be a little more open-minded. And like I said, just the fact that they didn't get AIDS just from having this one person in their life, I mean, they got it from probably having hundreds of people in their lives. And the thought of that makes my stomach turn. Really, it does.

She goes on to suggest that the patient's behavior may influence her feelings about putting herself at risk, thus demonstrating the "dilemma of status" (Hughes, 1945) that occurs when she responds to the patient as "sinner" and as "sick" (Kowalewski, 1990):

> A lot of them are very, very, promiscuous to begin with, and it's like they fly off to New York, they fly off to Los Angeles just for a fun weekend type of thing. Just that idea itself really bothers me. And...then they get the disease and they're really sick people and they have to be looked at as sick patients, not what their lifestyle was.

While some nurses may believe that patients choose to engage in homosexual behavior, almost all agree that patients did not knowingly expose themselves to risk nor do they intentionally infect others:

> D4: The homosexuals didn't get it deliberately, and they didn't deliberately give it to him [hemophiliac patient with AIDS].

> D5: It wasn't their fault. It wasn't something that they did to themselves. They just got--it was just that the virus infected into their way of life or their--realm of people.

> D7: This is probably my pet peeve, but float nurses who would come to the unit, they would say, "oh, it's so sad--this poor innocent lady, and look what she got". And I would think, well, yeah--all of these other young men, I mean, they went out and they asked for this terrible disease. Nobody asks for it, they all need that equal loving treatment in my opinion. It's a terrible thing, and of course, nobody wants it. But there's that homosexuality prejudice again.

Nurses' experiences with "innocent" victims varied. Although several commented that they felt "differently" when caring for PWAs that were not homosexual or IV drug users, only two nurses admitted that their more empathic feelings related to attribution of responsibility. Most often, instead, their feelings were based on an identification with those of similar circumstances, which resulted in a greater feeling of vulnerability. That attribution of responsibility may, however, be unconsciously operating is suggested by D11 as she describes her feelings in caring for a woman who developed AIDS from a blood transfusion:

> I knew it was different [caring for her], and I know it's because she wasn't gay. She was married and had a family...maybe because she was female it was easier to relate to a woman, I'm not sure. And that she had gotten it from a blood transfusion rather than through maybe a sexual act or IV drug abuse. And I suppose that was part of it too. I guess it's almost like...when you think of it being sexually transmitted, it's almost like preventable and I guess I still have some of society's ideas that, well you got it, it's your own fault, and at the same time like I know it's not really anybody's fault, it's just something that has happened.

Over and above the nurses' attributions of the patient's responsibility for "becoming" gay and "acquiring" AIDS is the perhaps even more salient immediate issue of responsibility in preventing the spread of HIV infection. Perhaps this latter issue is crucial to nurses because it directly affects their own potential for developing the disease. Nurses separate the attribution of responsibility for the *problem* (who is to blame for the past event) from the attribution of responsibility for the *solution* (control of future events)(Brickman et al., 1982). Most nurses see most patients as responsible and conscientious in preventing the spread of HIV infection. As previously discussed, patients are perceived as "looking out for our welfare" by ensuring that proper precautions are followed. The importance of "responsibility" is underlined in those situations where patients are not perceived as behaving responsibly. It is those patients that nurses have more difficulty accepting. D7 describes her feelings toward patients' irresponsibility to the public:

> It's people who know that they're infectious and don't stop that really make me angry...One patient--he's a drug addict...he was discharged and he prostituted himself to get money for drugs. I can't understand why don't we lock him up somewhere. That's awful.

She goes on to qualify that it is the issue of responsibility rather than HIV per se that influences her feelings:

> I don't think [I have] discriminatory feelings towards HIV [patients]. It's just a matter of--carelessness on their part, or--how they treat other people or their body, regardless of what their disease is.

Patients' behaviors on the unit itself are assessed in terms of responsibility:

> D7: We had one patient, the other day he felt sick, he went out to the phone by the elevators and threw up out there. And I mean, I think they have to take some responsibility. And that made me really angry. We do our best to care for them, and sometimes they don't seem to be really all that careful around us. And that makes us all kind of angry.

Responsibility to the patient's family, the public, and the nurse are brought out in D6's discussion of her feelings toward IV drug users, for whom she admits less compassion. She perceives that, in contrast to most gay patients, IV drug users for whom she has cared do not "look out for your welfare":

> I think probably [I have less compassion] because number one, they don't feel responsible for anything they do, number two, they are not conscientious, number three, they don't give a hoot about their families, their friends...about who they infect. Their motto is: I've got it so who cares, if you get it, tough...That is the one group where you really are on your toes.

In sum, attribution of responsibility involves several separate but related dimensions. It includes assigning responsibility for sexual orientation, for "high-risk" behaviors such as intravenous drug use, for acquiring HIV infection,and for preventing its' spread. For some nurses, an important factor in assigning responsibility for homosexual behavior was whether homosexuality is a matter of individual choice or attributable to situational factors. A situational attribution may result in a feeling of "universal vulnerability" that may lead to a greater acceptance of PWAs. Jones and Nisbett (1971) have argued that actors tend to attribute "causes" of others' behavior to "personality" characteristics because of lack of information about situational factors. Getting to know the patient was facilitative in changing attributions because it increased nurses' information and thereby "corrected" an information-processing bias that often leads to blaming. Nurses appeared to place considerable emphasis on the patient's responsibility to prevent the spread of HIV infection. However, those nurses who did not "accept" patients also viewed promiscuous homosexual behavior as blameworthy.

d. Perceiving patient needs. While the strategies used to "accept the patient as a person" were varied, the end result is a nonjudgmental attitude characterized by the "reduction of ontological deficiency" (Scambler, 1984) as described in the stigma literature. That is, the person is not condemned for "being" even though his "doing" may not be condoned. In this way, nurses reduce that which makes them uncomfortable and allows them to focus, instead, on the patient's here and now needs. There is some evidence that seeing the patient as a person with needs is also facilitated by the type of patients for whom nurses care. Several nurses commented on how caring for very ill patients increased their compassion and helped them to see how patient needs must be met regardless of how the patient acquired the disease. These needs included not only the physical needs that very ill patients manifested but also the social needs related to society's discriminatory treatment of PWAs:

> D2: There was one patient who I remember spending a lot of time talking with. He was really searching for some meaning to all this, and he talked to me about that a fair bit. And as he did that, I really could feel his loneliness and his loss and his grieving. And I guess that was a bit of what helped that process [of seeing the patient as a person]...Once you've seen the hurt, the loneliness, and all that they're going through, they're a person experiencing that, and it doesn't matter where they got it from. When that's there, that somehow transcends how they got it.

Similarly, D11 describes how caring for patients whose vulnerabilities are great elicits a compassion that disregards behaviors that one may not fully accept:

> Having spent some time with him, in his last month and just seeing that he had the pain...his helplessness in not knowing what to do...whether or not they're gay...they're dying from a horrible illness and they're dying a horrible death and it's a tragedy.

Another nurse suggests that caring for ill patients increased her acceptance. In discussing her reactions to her brother's negative feelings about homosexuals, she admits that she probably agreed with him, but "on maybe one or two occasions I might've defended the person, especially after a day of looking after a really sick one". Interestingly, the nurse who is least accepting of homosexuals has not cared for really ill patients. She has encountered them on the unit, however, and acknowledges that they "emit" different feelings:

> D1: When you go in the room, you can feel...illness. You can feel death and--sadness. You have to cope with all--there's a feeling there. They give off that. And they also feel probably rejected, so you pick up that.

Undoubtedly, the terminal nature of the disease does influence the nurse's acceptance of the patient. Friedland (1989), a physician who has cared for PWAs for several years, maintains that "blaming the victim" becomes more difficult when one personally witnesses the suffering endured by PWAs and their families. He asserts that only a "theoretical and abstract" perspective makes such blaming easy. Kahn and Steeves (1988) also found that "caring" responses are elicited more readily when patients are perceived to require substantial care. In describing how her interaction with PWAs differs from that of other patients, D6 states:

> [The interaction is different] Quite different...because you know they're going to die. And you know they are going to die pretty soon...And you just want to be a very comforting source to them.

In addition to the empathy aroused in recognition of the patients' needs, caring for ill patients is time consuming, which in itself may facilitate getting to know the patients and their families. Such a continued contact may also help nurses to "accept patients as persons".

The above findings are discrepant from other evidence that "blaming the victim" may continue or increase as patients near death. Bailey et al. (1989) found that among a sample of students, an anonymous PWA was not regarded with more sympathy as he became progressively sicker. Other studies also have shown that fear of death may lead to "social distancing" among HCWs as they attempt to decrease their own vulnerability to disease and death (e.g., Peloquin, 1990; Wortman & Dunkel-Schetter, 1979).

In summary, seeing the patient as a person changes the meaning of caring for PWAs. Three aspects of nurses' perceptions of patients seem particularly important in helping them to see and accept patients as people and which influence their perceptions of their work. First, nurses come to see patients as similar to themselves, with unique characteristics and personalities. Second, nurses view most patients as responsible people, not in the sense of being "responsible" for acquiring HIV infection and developing AIDS, but as conscientious and responsible in *not* spreading it to others, including the nurses who care for them. Third, nurses perceive that patients suffer from a horrible illness, have many social, emotional, and physical needs, and deserve to have these needs addressed in a compassionate manner. They need a nurse who cares.

B. PERCEPTION OF WORK

1. "I Like My Work. I Enjoy What I Do."

Most of the nurses interviewed found their work with PWAs to be personally gratifying and not merely obligatory. They "enjoyed" their work despite the difficulties encountered. Work satisfaction was related to the nurses' perceptions of their patients and the relationships they developed with them. While initial relationships may have arisen out of a professional obligation and concern, nurses developed attachments well beyond the expectation of the job. Indeed, old definitions of "affective neutrality" (Parsons, 1951) are challenged. Nurses pointed out that the nature of the nurse-patient relationship, while professional, often contains the sentiments of a "friendship" (Bogdan & Taylor, 1987). Relationships are characterized by an ease of interaction and reciprocity, in which nurses and patients share feelings, information, and personal interests:

> D5: And a lot of the times they know a lot about us...you know, they'll ask you what you did on your days off and it's not only a working, caring kind of relationship but also a friendship.

> D6: Once they've got over the initial getting to know you, trusting you, they're warm, they're friendly, they like talking to you, they're very interested in you and

> your family. You kind of return their warm feelings...I think if you can give them a little bit of your life...I often talk about my family, what we did last night. And they always ask [about it] when I go back on duty the next day.

She goes on to describe her enjoyment of their interactions:

> Once you've been with them, once you talk to them, once you've looked after them, you get to know them...oh, I have utter compassion for them. In fact, I just enjoy them. I fool around with them...joke...I carry on with them, and they enjoy it...You come to know them very well. Your compassion for them grows deeper because they're such a nice person.

D7 elaborates further on what a "friendship" relationship entails:

> And patients are very open about hugging...we get to know them so well that it's a friendship. And it just feels good. I do things without thinking that I would do for any other friend. We had a patient that...I got to like like a little brother. And one day he was having a really bad day, and I just bought him a couple of carnations for his room.

This "friendship" is facilitated by several factors. Many nurses mentioned that the patients' frequent hospitalizations as well as their similarity in age assisted them in "getting to know the patients":

> D11: You get to know them...they're not a patient anymore...you get to know them on a friendly basis...you get emotionally involved...and usually they're people who are around my age--so you can talk about things that concern you...And you get to know them over time, it's not like they come in for three weeks and they go and you never see them again 'cause...they come back in.

Others point out that seeing patients at all stages of their illness is important in becoming involved:

> D6: You get very close to them. Very intimately, very--you can't be any closer when you're with them and they're dying, and they die. Extremely close to them. You know them. You've been with them when they've been up and walking. You've laughed with them. You've cried with them.

A further indication of the closeness of the relationships nurses establish with patients is reflected in the nurses' feelings and actions when patients die. Attending funerals was not uncommon even on a unit where nurses cared for patients less frequently. One nurse stated that she had attended four funerals in one month. Nurses' family members also share in the nurses' involvement with the patients. For example, one nurse's husband attended funerals with her. Another commented that her husband can "see the pain in my eyes" when a patient with whom she has developed a close relationship dies. Others point out that when a patient dies, "you can just see it in everyone's face on the unit...you can sense it, you can see it...everyone's walking around in a daze". Moreover, patients are not forgotten quickly as nurses deal with their grief by reminiscing and "drawing on past memories of what patients were like":

> D6: You somehow down the road miss them and say "do you know who I was thinking about the other day? I was thinking about so and so. Do you remember that time when he got on our nerves? Or do you remember the time when he gave us that beautiful cake?"

The attachment that nurses develop with the patients' significant others is reflected by their continued "visits" to the unit after the patient has died. D5 quotes a partner's comments about the support he received from the staff:

> This is the only place where I can really say what I'm feeling...where I can just come up and say anything I want and you guys will understand...this is the only place where people ask me straight forward, right out, how am I doing since [my partner] died.

Also indicative of the attachment that develops between nurses and patients is that for many nurses, the death of patients is the major disencentive to working on the unit. Even nurses who have come to terms with their own death stated that the relationships they develop make it difficult to deal with patients' deaths and, in one nurse's words, "it doesn't get any easier". Indeed, two nurses admitted that they now make a conscious effort to decrease their involvement with patients because "when they die, it just hurts too much". Ironically, nurses' increased involvement with patients provides them with a great source of satisfaction, while at the same time such involvement may also become the greatest source of distress.

Of particular significance are the nurses' perceptions that the personality of the patient is important in the development of satisfying nurse-patient relationships. Several nurses pointed out that caring for IV drug users may be particularly difficult. IV drug users are perceived to be "harsher", more "negative", and not as accepting of the nurses' help. Nurses also do not get to know their families. One nurse admitted that she is more prejudiced toward IV drug users because of their "irresponsible" behavior and is concerned that once such patients become very sick, they may be difficult to nurse. As she states, "You don't go to him with that love and compassion that you want to do more". The perception that IV drug users are more difficult patients is also borne out by other researchers (Friedland, 1989; Cohen & Wiseman, 1986; Fox et al., 1990; Ross & Hunter, 1989; Sumser et al., 1990). Fox et al.(1990) suggest that IV drug users are in many ways more socioculturally dissimilar from HCWs in terms of race, culture, income and education, than are the mostly middle-class gay men. (This is particularly so in the USA where IV drug users are often poor, Black or Hispanic). Moreover, they carry into the hospital context distrusting attitudes and manipulative behavior characteristic of street drug culture. Fox et al. (1990) found a hierarchy of acceptance among patients that reflects the importance of "similarity" as previously discussed. "Innocent" victims (those who developed AIDS from blood products) were regarded with the most empathy, followed by gay patients, and then IV drug users. They predict with some concern that "IV drug using HIV-infected patients represent the fastest growing and most problematic set of patients" (p. 272).

2. "My Work Is Worthwhile"

Accepting patients as people not only contributes to the nurses' enjoyment of their work but also is reported to be important, if not essential, in seeing work as meaningful and valuable. Nurses described how coming to terms with their feelings about the patient imputes meaning to their work. This meaning, in turn, provides the motivation needed to care for patients in the manner perceived to be part of the professional role. D2 explains:

> The most positive thing for me was when I saw them as an individual person, and that gave meaning to my experience of caring for them because then what I was doing was worthwhile and valuable because they're a person to me.

D6 also suggests that not accepting the patient as a person may decrease the motivation to care. She maintains that if one does not come to terms with one's feelings about homosexuality, then "I don't think you can approach your patients with an honest, truthful approach wanting to help". Others pointed out that not accepting patients as persons may diminish the quality of care provided, which may decrease the nurses' satisfaction with their work:

> D2: Before [you come to accept them] you can give good nursing care but you tend to do what's required; you meet the physical needs and you don't necessarily go beyond that. And when you see them as a person and are trying to care for them that way, you...ask them leading questions and try and give them opportunity to talk about things. And I think that some of those things are the areas that we close off when you're not comfortable with them or you're not accepting of them.

Lessor and Jurich (1986) also found that the "moral and social contamination" associated with AIDS presents a barrier to providing holistic and humanistic care. In order to carry on the sentimental work required for these patients, AIDS workers needed to "suspend" the ordinary moral rules of society or actively assert that the rules are wrong.

Caring *about* patients is seen as providing the motivation to care *for* patients. Nurses' accounts of the care they provided for patients reflected a breadth and depth of involvement that surpassed what is "usually" considered to be the nurse's role:

> D4: And I honestly do care about them...I like my job, I like what I do...so I guess that all makes it...You want to go that one step further. If it means staying an hour after work, that's all right. I'll sit and talk to you. And if a family member wants to come with me and talk...I don't mind that...You'd get involved in every aspect of their life because they don't have anybody else.

Indeed, nurses often functioned as substitutes for family in those situations where patients' families did not accept the patient's situation. As well, they acted as facilitators in helping patients to address patient-family conflicts and assisted patients in planning funerals and writing wills. Several nurses spoke of helping patients with spiritual issues, particularly in terms of coping with the emotions of guilt and fear about their deaths. D3 provides an example of the spiritual support she gave to patients:

> We sort of built up a sharing relationship, so that he felt he could talk about spiritual things with me, and I would understand. And that seemed to give him a lot of comfort...He would ask me to pray for him [and] with him.

D6 sums up the myriad roles that nurses play as follows:

> Yes, I feel as if I'm more than a nurse...Sometimes I feel like a social worker. Sometimes I feel like a "priestess". I'm listening to these...little things that they tell you are very confidential...we play the comforter. I play many roles, and I think we all do. We play many, many roles.

Such high involvement in the patients' care reflects the nurses' commitment to, and acceptance of, the patients. This deep involvement accords with the findings of other researchers who have investigated nurses' caring for PWAs (Lessor & Jurich, 1986; Fox et al., 1990; Brennan, 1988).

Part of the nurses' beliefs that their work is worthwhile arises from their feeling that they have something "special" to contribute. They perceive that these patients require the kind of care that they see themselves as being able to provide because they "care":

> D6: Why do I work there? I think because...I'm not afraid to be with these people. It doesn't appall me, their way of living. And I think most of all, I *care. I really care* . I like it. I don't profess to be self-heroic or anything like that. But I think there's a great need for somebody who cares to be there [emphasis mine].

> D7: I know that I'm a compassionate person, I mean, my skills may not be terrific--I don't work with respirators or do things like that. But I know I'm compassionate...if anybody needs it, they do...If I or a member of my family had this disease, I would want someone like me working with them. Because I ***know I care about people***. And I would want someone who cared about me if I was dying [emphasis mine].

> D11: Maybe it's the martyr in me or something...like I can take care of these people. I can accept them whereas there are people who can't. And I know that I have that within my personality that I can...take care of these people who are suffering a great deal.

> D3: I have an ability to empathize with people, and they sense that, and family senses it, and I have a feeling that I give them strength because of understanding their sorrow, their grieving...I feel for them, and they sense that, so I feel good about being able to at least make it a little more tolerable. You can't stop any of it, but just to help them feel that you're there for them to lean on.

In short, these nurses seem to be saying, "I have something to give to someone who needs and deserves it".

In addition to their own feelings of providing a worthwhile service, nurses receive feedback from the patients and their families about the value of the work that they do. The interviews were filled with very touching accounts of various expressions of gratitude that patients and their families convey to nurses. This provides nurses with a major source of "appraisal support" (House, 1981) in the form of validation that their efforts are both effective and appreciated:

> D3: They [the family] appreciate what we do for their son more than what maybe some parents might...they are there so much, and know the effort and time we put into it, and the kindness with which the staff deal with him...And they sort of feel like--especially certain nurses, that they warm up to a little more maybe--you're family and they bring you chocolate bars and chocolates to try and show their appreciation. But there is a closeness there, and then we get so many cards afterwards, they write their little page on there...telling us how they couldn't have got through it without our support, and how good everyone was, and all those kinds of things that make you feel that you did help the family.

> D7: And after he died, his mom gave me a little note from J, saying thank-you for the flowers--it really touched me. And it just made me cry. And it's really special things like that that make you want to go back to work every day.

D4 further suggests that while the work itself is rewarding, the gratitude of patients and families also contributes to work satisfaction:

> And to help them work through [acceptance of their son's homosexuality and disease] is rewarding, and accepting their son. And they're all so happy and glad that we are helping, and that we accept them for who they are...that I think it's one of the most rewarding parts of it...Their families have been fantastic to us. They bring us stuff, they give us flowers with lovely notes...all sorts of nice, caring kinds of things...And the notes we get--if you could just read a few of them, from brothers, sisters, moms, dads, everybody. It's just wonderful, the things that they write to you--to the ward as a whole. I don't think I've ever experienced anything like that in any other kind of nursing.

D11 recalled how a patient's father publicly stated at his son's funeral that the two places his son had felt "at home" were in his own home and on the nursing unit. She emphasizes the importance of such feedback in helping nurses to validate their own competence:

> And I thought...we are doing something right. It was good to hear that because...what we're doing, we're doing okay, so we just keep on doing it. For somebody to feel at home in a hospital bed, it must mean that there is a lot of caring going on. And that makes me feel good. I thought, hey, "wonderful".

The nurses' comments also imply that nurses perceive that families care about them by taking the extra time to convey, often in very special ways, that the nurses' work is appreciated. This perceived care and concern suggests that nurses also derive emotional support from the patients' families. As one nurse stated, "The families have seemed to be willing to show you [their appreciation] and tell you that. And you don't always get that in nursing. And a good pat on the back from somebody like that is quite helpful". A further example of emotional support is that provided by a deceased patient's partner, who continues to visit the staff:

> D10: And one of our patients who passed away, his partner used to give us all hugs when he came onto the unit...he makes everyone feel wonderful.

The support provided by patients and their families may be a crucial motivating element to caring for patients because others, particularly the nurses' families, may not provide feedback that the nurses' work is valued. Several nurses commented that their families' attitudes toward homosexuality may prevent them from valuing the nurses' work:

> D2: Like I don't think they'd ever tell people that that's what I do, they're not proud of that because...they don't see them as people yet, it's still they're people with AIDS and it's because they're homosexuals or drug abusers and that's not something that they can accept...they don't really value what I do because of their own response to homosexuals and drug abusers.

Similarly, D4 talks of her husband's response:

> I honestly don't think he thinks they're worth my time, to be truthful. That they're people that--just are not plain worth it, that they should be let to go.

However, for most nurses, this attitude does not seem to influence their own feelings about work. Nevertheless, these attitudes at the very least may close doors to potential sources of support.

Of considerable practical significance is the constraint to work satisfaction posed by time and work demands. Nurses were very concerned that recent budget cuts have decreased the amount of time that they have to "get to know the patient" and to care for them in a manner consonant with their expectations. In fact, they see the work demands as a major source of frustration because it prevents them from engaging in that which makes their work satisfying and worthwhile:

> D4: We're cut back staff...so your patient assignment is heavier, and then your emotional support comes last. And sometimes it doesn't come at all...I find that the hardest part to deal with...not being able to give them the emotional support...because they really need it...You go home feeling guilty, like you haven't done a good job...Sometimes they just want to talk, and they just need someone there to listen. And it doesn't do any good three days down the road because they might not be there. So if you miss the opportunity that day, you may have missed it forever, and that doesn't make you feel good...There's lots of nights I don't sleep...thinking that if I'd've done this or wishing I could've done this or that.

Similarly, D7 explains how insufficient time may even lead to burnout, as nurses attempt to provide what they consider their patients need and deserve:

> And it's important to us to make them happy and comfortable. And then we don't have the time, so we feel guilty or we stay late or miss our breaks. And then we get burnt out and feel, like, nobody cares. Some of the staff are really feeling that lately. When we're short-staffed and you know there's a patient that needs you, and you can't do anything about it, that's a terrible feeling.

These comments assume increasing significance in light of recent reports suggesting that nurses' attraction to caring for PWAs may be due primarily to the degree of autonomy and support that they are accorded so that they can provide what they regard as quality care (Fox et al., 1990). Moreover, nurses perceive staff cutbacks not only as affecting the manageability of their work but also as reflecting the value that administration places on their work. Several nurses offer their perceptions of administration's validation of the importance of nurses' work:

> D7: Aside from ourselves, the hospital doesn't seem to really give two hoots about us. We always put our patients first, of course, and we ask for enough staff so that we can have psychological time, we call it, to spend with our patients. ***And they don't understand that; they put emotional needs way below everything else, so it's really hard*** [emphasis mine].

Another nurse acknowledges the financial concern but also focuses on the valuing of work:

> D11: There's not enough money to have enough nurses, and emotional time is not valued unless you're on a psych[iatric] ward...I think the hospital cares but they don't show it in any overt way...they don't really give you anything, saying, hey, you did a good job or anything like that...I think the rewards come from within our own unit amongst ourselves. And I don't see it as being any recognition outside the unit from anyone.

On the other hand, physicians who care for PWAs were mentioned as a source of support. This may confirm what nurses have often asserted, namely, that only those who work with PWAs can really understand the complexity of the care the patients require. The physicians' support was perceived as an incentive for nurses' continued care. Of particular interest is the appraisal and emotional support derived from being in a cooperative network of workers who perceive the same values and goals in caring for PWAs and who respect the nurses as colleagues:

> D12: And she'll [the physician] come and put her arm around you and say, "well, you're doing all right"...And that's important from doctors.

> D7: It feels good when they [residents and interns] ask us questions about how to deal with a situation, or how we feel about something.

On the other hand, those physicians who do not see the patients' needs in the same light as do the nurses and who do not respect the nurses' opinions are perceived as a source of frustration rather than as a source of support.

Finally, nurses receive validation about their work from their own coworkers. They perceive that others value their work. Moreover, nurses receive much emotional support from others, particularly when they are faced with increased work demands and are coping with grief. On the unit that routinely cares for PWAs, there appears to be a special closeness between those nurses who share the same rotations. Several nurses comment on the social climate of the unit in terms of the emotional support they receive, which gives rise to a feeling that "others care about me":

> D5: I consider that the unit I work on is a very special unit. A lot of really special people--I can't put it in any better way than that. I've never worked on a unit where I felt more...like a family member...we have a lot of emotional support [for] one another.

> D6: I think 888 is a pretty special group. We have a lot of support from each other. We do a lot of hugging...we comfort each other.

> D7: The group of people that work there are so wonderful...it's a great bunch of people...A lot of people are really intuitive and you don't have to say always, "I'm having a bad day"...If you need a hug, some people can just tell that you do, and it's there. Or a pat on the shoulder, or they say, "oh, you're having a bad day--sit down and have a cup of coffee"...Just a lot of understanding without actually having to say anything.

Validation of the value of one's work may be important as a source of work satisfaction and may buffer the stress that results from work constraints. The "devaluing of work" is a significant concept in the literature describing "burnout". Maslach (1982) noted that burnout is manifested by workers' inability to maintain the committment and sense of caring that they originally brought to their work. Edelwich and Brodsky (1980) describe the burnout process as a progressive loss of idealism, energy, and purpose, in which workers begin to question their effectiveness in the job and the value of the job itself. There is some evidence that the likelihood of burnout is associated with an increase in the number of hours worked per week (Mor & Laliberte, 1984), decreased support from spouse (Chiriboga et al., 1983), the cumulative effect of many deaths coupled with high emotional involvement (Gray-Toft & Anderson, cited in Ray et al., 1987), and sharing demographic or personal characteristics with the patient (Cherniss, 1980; Edelwich & Brodsky, 1980; Maslach, 1982). Workload has also been reported as a high-risk factor in stress among hospice workers (Gray-Toft & Anderson, 1981). Vachon et al. (1978) noted that the nurses' inability to meet the psychosocial and physical needs of patients was perceived as a stressor. In short, these studies suggest that nurses who care for PWAs may be at increased risk for "burnout", given their perceptions of their inability to care for patients the way they feel that they should and given their perceptions of the worth that others place on their work. Added to these factors is the demanding nature of care, including the stress experienced when patients die.

C. DISCONFIRMATION OF "ACCEPTANCE"

Nurses' constructions of acceptance of the patient are not secure for all time. Situations may arise in the workplace that trigger feelings of uncomfortableness with homosexuality and alert the nurses to the fact that they may not be as accepting as they thought. D4 describes her feelings:

> You'll be thinking that you're oh so wonderful or that you agree with everything, and that you accept their lifestyle, and you accept this about them and that about them, and then you'll see something and think, oh my gosh, I can't handle this. You know, whether it's two men kissing or whatever it is, and you'll think that you are all accepting, and bang...[and you'll think] I'm not as good as I think I am...It throws you right back down to earth.

D5 suggests that nonwork situations may also elicit a change of feeling towards patients:

> Sometimes your way of dealing with things is different from one day to the next...If something's happening at home or whatever and I'm having a bad time in general in my life, sometimes I don't cope as well with some things that happen at work, in regards to AIDS and homosexuality, just with the patients in general. If I walk in on something I just can't handle it that day, where other days I'll sit back and I'll think, oh, that's really good that that person's got someone else in their life to care for them.

These examples suggest that nurses may need to work at maintaining not only a construction of control over risk but also a construction of patient acceptance. These examples, however, relate largely to maintaining a feeling of comfort when nurses are confronted with demonstrations of homosexual behavior. Of greater significance is the disconfirmation of acceptance that occurs when nurses become exposed to HIV. At such times, nurses may begin to question the value of their work and may resort to primitive attributions of responsibility that involve a derogation of the patient. This will be discussed more fully in chapter IX.

D. PROFESSIONAL COMMITMENT

The professional commitment to care for all patients has often been discussed as a motivating influence, because nurses may feel obliged to render service. The duty to care has been juxtaposed against the risk of acquiring the disease. In this research, the professional commitment to care is influential in nurses' deciding not only whether to care but also how to care. Moreover, while all nurses agree that patients deserve to be cared for they do not necessarily believe that they personally should be the ones to provide this care. This discrepancy between idealistic beliefs about the care of patients and actual practice has been reported by others (Atchison et al., 1990).

For most nurses, there was a feeling that their professional duty was to provide care in spite of risk:

> D5: I think that medicine and nursing--you care for every individual--race, color, age. And you shouldn't refuse to care for anyone. I don't think that I specifically would refuse to work with any kind of patient...When I took my pledge of oath as an RN, I knew that I would be dealing with different kinds of diseases. Those that would be contagious, seeing a lot of death--that was what I wanted to do with my life, and I'm satisfied with that.

> D7: I get really defensive about our AIDS patients. I don't know why. I just feel that you can't be--why discriminate...we're all here for the same reason, we're all here to help each other and--how dare one person come and say...I'm not caring for you because of the bad things you've done or--whatever their reason may be...This comes down to, we're all people, they have an illness, we're nurses, we take care of them. Simply put.

Similarly, D11 suggests that professional commitment and responsibility should override personal feelings:

> I don't think nurses should refuse to care for anybody, no matter what their illness...If you're going to say you're going to be a nurse, you're going to take care of patients, well, then take care of them...I question their being a nurse if they start to refuse...I don't trust them...if you don't take care of them, like who else don't you take care of? On the other hand, it's well, I should have a right to say no to this. But if you're in this profession, you should know what you're going into, kind of what to expect.

D6 compares the risk of AIDS to other contagious diseases:

> I think as a nurse, no nurse should refuse. No nurse on this earth should refuse to look after them. That's taboo. They shouldn't nurse then. I mean look at the polio people, years and years ago. Did nurses refuse to look after them? And the chance of getting polio was greater.

While all nurses agree that someone needs to care, not all feel that they should be required to do so or are even "equipped" to provide the best care. D1 suggests that her feeling of resentment and fear is inimical to "good" patient care and therefore she should not be required to care for PWAs. Moreover, she witnesses that other nurses on her unit seem to have no problems dealing with patients. Why, therefore, should she be asked to care for them?:

> I would like to know what are our rights, like do I have to? Can't we assign someone else? If I don't feel right with it, why should I be in that room 'cause I'm not doing him any good. And I'm not doing me any good. He needs someone maybe he can talk to. I'm going to avoid any kind of conversation I can...so that's not nursing.

In fact, when asked about their right to refuse to care for patients, nurses' comments suggest that the patient's welfare is the primary consideration. If a nurse does not want to care or is emotionally not equipped to do so, then it is perceived to put the patient at risk for less than ideal care. D6 explains her reasoning:

> Oh, why put somebody on that floor that doesn't care? Can you imagine how these poor patients are going to feel? It's bad enough to see and hear and listen and watch them go through what they have to do than them to have a nurse that doesn't care on top of it. Oh, that would be horrendous. That would be grossly unfair.

Others also emphasize that being uncomfortable may be inimical to carrying out quality care:

> D8: I think a nurse has a right to say no. If she's not comfortable in the situation looking after an AIDS patient, it is by no means going to make the patient comfortable. And there you don't have the nurse-patient relationship, so that person should not be looking after that patient.

Those nurses who expressed the greatest discomfort in caring for PWAs, not surprisingly, felt that they should have a choice based on both the nurses' wishes and the patients' needs. Moreover, these nurses did not perceive that they had been given a choice in being assigned to care for PWAs:

> D13: [I think nurses should have a choice] because there's some people who really like looking after these people. And it's a challenge, and they enjoy that challenge. But I don't. Well, I do, but, it's the thing about the choice again.

Although those nurses who were uncomfortable were more likely to consider the nurse's needs as important determinants of their decisions, one nurse who was very comfortable caring for patients was also a strong advocate for the nurse because she believed that not all nurses can care for all patients. She talks about various nurses she has known who have refused to care for patients:

> D4: I will admit it used to make me mad when somebody would say that [they did not want to care for PWAs]...I 'd think what the heck. But after you talk to a couple people, maybe they have their reasons why...and they're not going to be any good looking after the patient, if they don't want to, number one. And number two, we're not all the same. Like we can't help sometimes the way we feel...So the ones that don't want to...I don't think it should be any different than somebody who doesn't want to look after a kid. 'Cause I definitely don't want to look after kids...And it makes me mad when we think that everybody should--just because we accept it and can work with it doesn't mean everybody else can.

This nurse suggests that there is a "stigma" attached to not wanting to look after PWAs. She compares the AIDS situation to the situation where nurses request that they do not want to care for women who have had abortions and maintains that such requests are usually honored. She points out that nurses are quick to judge those who refuse to care for PWAs because it is assumed that the nurse is prejudiced:

> It's because we're so wanting to put a stigma to it so fast and quick and judge these people. "They don't want to look after these guys 'cause they're homosexuals". Well that's not always the way it is.

D1 echoes her sentiments that "we're only human":

> I think [the expectation is] you're in the nursing profession. If you're in it for nursing, you do what you do, and you have to do it. If you don't want to do it, you shouldn't be in nursing...but then people forget that we're human.

As pointed out previously, there did appear to be some differences between the hospital policy and the policy of the unit that cared for PWAs on a regular basis. The unit policy seemed to be more oriented to the needs of the patient and the individual nurse. On the other hand, the hospital policy appeared to emphasize that all nurses must care for PWAs, but in doing so they may "wear anything" in order to feel comfortable. Such a discrepancy in the perspectives of management and of individual nurses has been voiced by Gerbert et al. (1988): "Management speaks in the language of practical operations and is concerned about ensuring continuity of the provision of health care. Health professionals' language is experiential, they are concerned with their personal health and security" (p. 3482). I would add further that the individual nurses on the unit are concerned that the patient receive empathic care. For nurses, this may be reason enough to honor nurses' requests not to care.

In short, while nurses' professional obligation to care may help to justify caring for patients in the face of risk, a commitment to quality care may provide a rationalization for some nurses *not* to care for patients. Moreover, the numbers of patients requiring care and the perceived number of nurses willing to do so, reassures nurses that "all patients could be cared for by those who really care". Nevertheless, there is a strong feeling among those who care for patients regularly that there is no "reasonable" right to refuse.

The issue of whether nurses should have the right to refuse to care for PWAs has received much attention in the professional literature (See Chapter II). Of the seven nurses that were unaware when they first received their job assignment that they would be caring for PWAs, three considered choice to be an important issue. One nurse, in particular, felt a decreased sense of control. Although she admitted that knowing she would be caring for PWAs likely would not have determined her place of work, she states she would have been more "informed". The social psychological literature suggests that threats to personal freedom may lead to "reactance" behavior, in which individuals may shift their feelings and attitudes in a direction away from that being advocated, even if it is one they might normally accept (Brehm, 1966). The importance of "decisional" control (Averill, 1973), the opportunity to choose among various courses of action, has been documented in the coping literature (Moch, 1988; Averill, 1973). In a sense, choice is the antithesis of obligation. Choice implies that nurses want to care, versus having to care. This may provide them with a sense of control, even though their decision may be the same. One wonders, however, whether having a choice would influence feelings of personal commitment, because choice implies a sense of commitment.

E. SUMMARY

In this chapter, I have discussed the nurses' acceptance of risk in terms of the "meaningfulness" of their work. For most nurses, this required a reassessment of their own values and attitudes about the patients' lifestyle. Coming to terms with homosexuality involved redefining the patient as a person with unique qualities and needs. "Getting to know the patient" was the major process that facilitated this change. While nurses used a variety of strategies to assist them in seeing the patient as a person, the underlying theme was the ability to share in the patient's experience by seeing patients as similar to themselves. Perceiving similarity influenced their attribution of responsibility. The nurse-patient relationship that results from the nurses' acceptance is characterized by a deep and broad involvement in many aspects of the patients' lives as nurses become substitutes for patients' families and friends. Of particular interest is the reciprocity of the relationship in terms of the sharing of interests, information, feelings, and support. Work satisfaction is derived from a deep involvement with patients which was not considered possible without accepting them. This involvement, in turn, provides nurses with feedback which justifies their involvement and provides them with a sense of worth. Patients and their families are seen as a major source of validation that the nurses' work is valued and appreciated. On the other hand, a major barrier to work satisfaction is not being able to provide the kind of care that nurses value. Increased work demands, for example, compromise the quality of care and are responsible for decreased work satisfaction. The nurses' professional commitment to care also may provide justification for working in the face of risk. It may also be the case that a professional commitment to care may be a motivating factor to accept the patient as a person. Nurses' commitment to patients increases as they go beyond an obligation to care to a commitment that involves not only caring for patients but also caring about them in a personal way.

VIII. COPING IN RELATION TO OTHERS

In the previous chapters, I have discussed the coping strategies that nurses use to convince themselves that risk is manageable and meaningful. Nurses also may have to convey to others in their social and professional networks that they have a sense of control over risk. This gives rise to two additional coping tasks: maintaining professional self-esteem, and managing others' responses in order to maintain satisfying personal relationships. In this chapter, I will discuss these tasks under three main sections: maintaining professional self-esteem, managing significant others' responses, and managing "nonsignificant" others' responses.

A. MAINTAINING PROFESSIONAL SELF-ESTEEM

In addition to reassuring themselves that they are at minimal risk for acquiring HIV infection and AIDS, nurses also attempt to convey to others that they have minimal or no fear in caring for patients. As indicated in chapter IV, nurses for the most part perceive that their professional role requires that they manage their personal trepidations and insecurities with aplomb. Behaviors that indicate the presence of anxiety, fear, and revulsion are considered inappropriate. Moreover, feelings of fear and nonacceptance also may be perceived as being discrepant with the "feeling rules" (Hochschild, 1979) of the professional encounter. Nurses, therefore, may need to come to terms with their discrepant feelings *as well as* attempt to project to others how they "ought" to feel. This may involve conveying a behavioral expression that is incongruous with their own "definition of the situation"(Goffman, 1959). In other words, nurses attempt to manage the presentation of their professional selves in a manner that preserves their image of a professional nurse. This includes their presentation of themselves to themselves, to patients, and to colleagues. It involves managing the derivative emotions of guilt and shame that may arise when nurses perceive that their feelings of fear and nonacceptance are inappropriate. Nurses used a variety of strategies to preserve their professional self-image to themselves and others. Because fear was greatest when they first cared for PWAs, these strategies were most evident in nurses' initial encounters with PWAs.

1. "Acting As If"

One of the ways that nurses dealt with their fears when interacting with their patients was to try to act as if they were not afraid. The impression or definition of the situation they wish to portray is that risk (and fear) are not the focal point of their interaction with the patient (Davis, 1961; Goffman, 1959). In effect, they present an "idealized impression" of what they believe nurses should do and feel in the situation (Goffman, 1959; Hochschild, 1979). In discussing her initial fears and how she coped, D4 states:

> You have to do it anyways. And try to act like you weren't [afraid], so it didn't show with the patient...You just bit the bullet and went in and did it and pretended that you weren't afraid.

Similarly, D5 comments on the importance of projecting an impression that one is not afraid:

> I think that's a big thing that you have to convey to them, that you're not scared of them...It's important that if you know you're scared, that's okay, but try and not make the patient uncomfortable with it, because they pick up on it so easily. [She goes on to say]...When someone's in that room, and the AIDS patient is coughing, and that nurse is jumping back every time that they cough, oh yeah, they know right away...who's comfortable and who's not.

The nurses' perceptions that it is not permissible to show fear is influenced by their experiences with PWAs. Several nurses cited examples of situations where patients voiced their uncomfortableness with nurses who were afraid (as discussed in chapter IV). Additionally, nurses gave anecdotes where patients tested nurses to see if they were afraid. This testing appeared to relate primarily to the fear of casual contagion rather than to more "realistic" threats from body fluids. D6 explains:

> And some of them will test you. Especially if you are new. They will come right up close to you, they will put their arm on your shoulder, and they will wait for you to back away, and the minute you do that you've lost their confidence and you've lost their trust. Absolutely, immediately, you've lost it...they want to see how you react to the very word "AIDS".

Such "deliberate provocation" is similar to that observed by Haas (1977) in which high steel workers tested each other to reveal their true feelings in order to determine who could be trusted.

Another influencing factor to "act as if" may be the nurses' perceptions of others' expectations. It will be recalled that although nurses suggest that they are free to wear whatever makes them comfortable, they also criticize other nurses and point out that overdressing may intimidate patients. This may motivate "new" nurses to "hide their fears".

The strategy of "acting" may not always be effective in presenting the image that it is intended to convey. D1 discusses the difficulty that acting may involve for the patient and suggests that it may be easier to control the expression *one gives* than the expression *one gives off* (Goffman, 1959):

> I don't really want to work with them. I know I can cope now with them, I can work with them, and I can put on a front for them not to see...[but] I know they can feel the rejection, and I know they can probably sense it from me. I try not to show it, but I think---you can sense it without a person having to tell you. I mean, body language says a lot too.

Moreover, she goes on to say that although she feels that she may be able to give perfunctory care, this would not allow her to meet her "idealized" expectation of a nurse as "someone who can sit down and talk to them". In other words, it may not be possible to "act" as if one wants to care because wanting to care is perceived as requisite to the delivery of quality care. In this situation, the appropriate action is difficult to deliver without the appropriate feeling (Hochschild, 1979). Moreover, not performing this quality of care "discredits" her to the patient and to herself.

On the other hand, D13 suggests that she is fairly successful at "covering" her true feelings. She too, however, has questioned its acceptability:

> In a professional setting, I'm not going to let it come across to the patient, and...I really try not to let them know how I feel. And I really don't think that I do. I think I succeed in that...Basically, it's an act...I feel that I shouldn't be thinking like that. And then I tell myself it's okay to think that as long as you don't show it.

In order to convince herself and the patient that she cares, she "covers" her true feelings by spending time with the patients. Unlike D1, she perceives that she is able to convey that she "wants to care":

> And I really do try to spend time with them just talking if you can, rather than just going in there and taking their temperature and running back out again. Because I

> think that just reinforces their feelings of how other people perceive them. And...deep down I might have those feelings, but I don't want them to think it 'cause they don't need that.

She too, however, expressed some anxiety about becoming "discredited" to the patient. When asked how difficult it was to present a "veneer" of concern, she alludes to the precarious nature of the fostered impression:

> No--it's like acting. You can go in there and come across as being really positive. And not so much that you're negative, it's just--like I just wouldn't want to slip up, basically. If it was a bad day.

This statement supports others' contention that impression management is not without its price. As Goffman (1959) states, "We must be prepared to see that the impression of reality fostered by a performance is a delicate, fragile thing that can be shattered by very minor mishaps" (p. 56). Jones et al. (1984) also suggest that such acting may lead to discomfort in interaction because of the fear of behaving in ways that will contradict the image being projected (p. 184).

A further example of "acting" is that of nurses accepting food from patients. In contrast to the nurses above, who anticipate being "discredited" to the patient, accepting food but not eating it may lead to feelings of guilt for the nurse. This indicates that the coping mechanism is not entirely effective in maintaining self-esteem even though it may be effective in presenting a particular image to the patient and in helping the nurse to cope with the risk of contagion. D3 admitted that if refusing food will offend the patient then she will accept it and later throw it away. This action did not appear to lead to feelings of guilt. For D4, on the other hand, such behavior elicits uncomfortable feelings:

> You feel like a bloody hypocrite. I sometimes have to choke it down because I really don't want it. [Or I'll take it, and] when I come out of the room...I'll throw it away. Then you'll go back in and you'll lie, say, yes, it was wonderful and that kind of stuff, and that doesn't make you feel very good about yourself. But I'll never hurt their feelings about it either. So it's one of those white lies, that--to prevent somebody's feelings from getting hurt, but...you still feel like a hypocrite over it. And that's not a good feeling.

These comments suggest that while the nurse's professional self-esteem, in part, may depend on her protecting the patient's feelings, her own feelings about the behavior are also important components of her self-concept. Such inconsistency between her behavior and her feelings becomes a source of dissonance (Festinger, 1957). Although nurses may attempt to minimize the conflict by "justifying" their behavior (that is, to preserve the patient's feelings), this is not sufficient to dispel all discomfort. *Looking* consistent is not enough. *Being* consistent is also important.

An interesting aspect of "surface acting" (Hochschild, 1979) as described by these nurses is that when prolonged, such acting may generate internal sensations associated with the displayed gesture. That is, surface acting can become "deep acting" or genuine feeling (Hochschild, 1979; Thoits, 1985). This did not appear to be the case with nurses caring for PWAs. On the other hand, Hochschild (1983) noted that repeated or prolonged expression work may lead to feelings of self-alienation or self-estrangement characterized by a lack of feeling ("playing robot"). Although nurses did not experience these responses, "feeling like a hypocrite" does perhaps suggest a form of estrangement from one's self.

"Acting as if" has also been described by other researchers (Geis & Fuller, 1985). These authors quote one nurse who accepted food and then would "throw it down the toilet when I get home". This behavior created feelings of embarrassment about the perceived "irrationality" of the behavior. Another respondent in their study described her "acting" behavior as follows: "I tried to be cool. I brought us some lunch. I thought he'd think I wasn't afraid if we broke bread together so to speak" (p. 79).

2. Discovering Shared Feelings

One of the strategies nurses use to maintain their professional self-esteem in spite of their concerns that they have inappropriate feelings is to try to "normalize" their feelings by comparing themselves to others. Nurses, however, were not always aware that others also felt, or at one time felt, afraid. Initially, many nurses did not disclose their true feelings because of a perceived "affective deviance" (Hochschild, 1979) that they may be alone in feeling this way. Moreover, to express their feelings may reveal inadequacies that reflect on their professional selves. They therefore choose to "contain" rather than to share their fears. Taken collectively, this helps to produce a situation of "pluralistic ignorance" (Schanck, 1932; Mayer & Rosenblatt, 1975; Haas, 1977; Smith & Kleinman, 1989). Believing that other nurses are handling the problem better than they are, nurses are forced to manage their fears privately. That nurses may find it difficult to express their fears even when "encouraged" to do so underlines their need to protect their self-image. D10 remarks on this silence:

> I think I've always encouraged people to say that they don't know or that they're afraid...but sometimes people don't necessarily verbalize it quite like that--with someone actually owning up to the fact that they're afraid of something...but you don't even recognize that that's what's going on.

In response to the question "Did you every wonder if other people felt as you did [afraid]?" D4 replies:

> Yes, but you're afraid to say it because you don't want to sound like you're--'Cause you think you're the only one. And so I didn't like to say anything 'cause you felt almost like--sort of two-faced because you were looking after them but you felt this inside, that you felt this fear. So you didn't like to say to anybody that's how you felt. Because you didn't--everybody's hiding it so well, we all did the same thing...You think that you're not as good a nurse as you should be because you don't accept.

This perception of others' acceptance of caring for PWAs influenced her own expectations of herself, "I thought they accepted it so that I should've too". Both her professional expectations of what a "good" nurse should feel and do and her perception that "others seem to be that good nurse" constrain her from initially seeking out support. That is, both her professional socialization and the social context of the unit were constraints to seeking out validation of her feelings. Both of these myths are shattered, however, when she "discovers" that others also feel as she does. She then realizes that it is acceptable to be less than perfect and, indeed, others are not as perfect as she once thought. In effect, she relaxes her "feeling rules".

Validation by others of one's own "deviant" feelings and reactions, even if they are culturally (professionally) not condoned, may somewhat reduce self-disapproval because knowing others feel the same way may bolster one's self-esteem (Thoits, 1985). D4 describes how her comparison with someone who was younger (and presumably more accepting) decreased her perceived deviance and appeared to increase her self-esteem:

> And she didn't feel any different, so that really made me feel good. I shouldn't say well...yeah, it did make me feel good that I wasn't the only one that felt like that. So then I didn't feel so bad.

Validation of one's own feelings as normal may have consequences in terms of seeking out information. D5 suggests that being afraid, and feeling alone in that fear, may inhibit one from asking questions for fear of revealing one's own inadequacies. On the other hand, "discovering" shared feelings increased her esteem, which in turn helped her to seek out information from those perceived to be more knowledgeable. In other words, while knowledgeable staff are a potential resource for nurses, initially their knowledge may pose a threat to the novice nurse. She explains:

> What if I asked this question, maybe the staff will think that's a really dumb question because they've been there so long and seen so much. But I asked one question, and no one laughed at me, then it enabled me to ask another question. And it really helped when the girl who started at the same time that I did and I sat down and talked. I didn't feel so isolated 'cause we both had the same concerns and the same kinds of questions. So that I think helped both of us open up to the staff a bit more, and the staff was always willing to provide information.

She goes on to explain that coworkers are the best, if not the only, source of appraisal support in terms of providing validation of the normalcy of feelings and emphasizes the importance of such support in maintaining professional self-esteem:

> When I first started working there I thought, well, my family's not really comfortable with this, and I don't know if I'm really comfortable about it. I just needed someone to talk to and say, is it acceptable that I feel this way about something specific, and it's reassuring when that person says, yeah, that's exactly how I felt when I first started dealing with it. It just makes it easier.

She recalls that having even one person "give her permission to be scared" was helpful in both preserving esteem and in decreasing fear because "it just showed me that everyone's human and it's not something that you're able to come on the floor and deal with right away. It's something that you have to work through, and it's a personal thing." These comments suggest that validation of her feelings occurred through confirmation by others that these feelings have "understandable origins in objective conditions...because others have also experienced them, and can point to their causes, even though everyone may recognize their normative inappropriateness" (Thoits, 1985, p. 238). Moreover, the emphasis inherent in others' comments that becoming comfortable is a process provided her with the confidence that she too could attain what she perceives as the more acceptable feeling.

As indicated by the examples above, shared feelings were discovered by ascertaining how people who had successfully overcome their fears initially had felt and by seeking out those who may presently be feeling afraid. These feelings were discovered through a variety of situations. For example, getting to know the staff allowed D4 to feel increasingly more secure to expose her inadequacies:

> And then gradually once you get into a unit and you know the people more, then you can start to say a little bit. And the more you get to talk, the more you realize that other people felt the same way you did...so now I'm really careful when we get new people, and to tell them how I felt at first and not to feel bad.

Similarly, D7 comments that while she initially felt that she should not let it show that it bothers her to work with patients' IV or blood, as she "got to know the staff, you realize that they have the same worry sometimes".

Witnessing and experiencing an actual exposure also led to the discovery of similar feelings:

> It looked like everyone else was [accepting working with PWAs]. What did it for me was one girl poked herself with a needle from an AIDS patient. And the color just drained from her face. Mine would too...I felt awful...And then we got talking and we realized then how we all felt. And I think that's when we first started talking.

Like the high-steel workers (Haas, 1977) who revealed their fear when accidents occurred, for the nurses, others' actual exposures uncovered underlying fears.

One nurse admitted that she did not think that her feelings were unique "because I think my common sense told me...this has got to be universal." She also appeared to be more direct in seeking out appraisal support from coworkers by asking questions:

> D6: I did a lot of talking with K. K was my mentor you might say and any problems I had in this area I would immediately go to K and say, "Am I silly, am I stupid thinking this way", and K'd say "No, for heaven's sake no. It's quite normal".

This same nurse also sought support from patients to determine if her feelings were normal. Such direct validation, however, was an exception among those interviewed.

Interestingly, there appeared to be less "perceived deviance" on those units where nurses did not care for patients routinely. On one such unit, this may have been due to most nurses' perceptions that PWAs did not belong on the unit because the nurses felt that they were ill-prepared to care for them. Initially, most nurses felt afraid to care for patients because they had not previously done so. One nurse on this unit said that they did talk about their fears, although this seemed to relate primarily to the precautions to follow rather than to their personal feelings. While she did not feel a "perceived deviance" in terms of fear, she does perceive that she is not as accepting as other nurses are of the patients' lifestyle. A nurse on another unit that infrequently cares for PWAs was able to present her "real" self to her colleagues by openly acknowledging her fear. Moreover, her perceived deviance appeared to be less disconcerting perhaps because she not only accepted that she was more fearful than others but also believed that others accepted her in spite of her fear.

In summary, nurses may feel a perceived deviance that leads them to manage their feelings by containing rather than sharing their fear. They "discover" that others have similar feelings. This allows them to appraise their own feelings as normal, thereby maintaining an acceptable professional self-image. In a sense, they impute a situational attribution to their feelings, believing that others in the same situational circumstances feel or have felt this way, rather than assigning a personal attribution to their own inadequacies.

The above process ties in with the social psychological theories of affiliation and social comparison (Schachter, 1959; Festinger, 1954). These theories suggest that individuals will tend to seek out similar others in an effort to evaluate if their feelings are normal and appropriate. This is particularly evident in situations where no objective standards exist or where standards are unclear. In such situations confusion and ambiguity can be resolved by comparing oneself to those who are in similar situations or who have experienced similar situations in the past. Nurses in this study made such social comparisons to validate their own self-impressions. In contrast to the theories above which emphasize a more "active" searching out of validation, however, these nurses initially experienced barriers to receiving social validation. Ironically, one of these barriers is the need to preserve their self-image. Like the cancer patients in Wortman & Dunkel-Schetter's (1979) study, nurses may perceive that obtaining validation for their responses may be incompatible with gaining acceptance and approval from others. While the best way to validate one's feelings may be to discuss them with others, the best way to maintain one's image as a professional nurse may be to convey an impression that one is not afraid. Consequently, nurses may try to stave off social disapproval by adopting a more "positive self-presentational strategy" (Wortman & Dunkel-Schetter, 1979), that of concealing their fears. Folkman et al. (1986) also found that people are less likely to seek out social support in encounters that involve threats to self-esteem than in encounters where self-esteem is not threatened. They suggest that not seeking support may be a way to ward off shame or embarrassment. This may have been particularly evident in my study because most nurses interviewed entered a unit where others were perceived as "experts". In such situations, nurses may find it more difficult to validate their feelings with similar others. Therefore, they may "discover", often quite serendipitously, that others feel as they do. Nevertheless, comparison with one's peers when it does occur, appears to decrease feelings of deviance and encourages an "upward social comparison" with experts that is instructive and motivating. Moreover, "experts" turn out to be helpful in validating feelings by sharing their initial and even present fears and by accepting those who are experiencing fear.

Shaver and Klinnert (1982), in a review of Schachter's work on affiliation, suggest that individuals in stress may seek out similar others because these others are likely to be both sympathetic and knowledgeable. The present research suggests that those who are perceived as knowledgeable may not always also be perceived as sympathetic. The main function of seeking out similar others may be to provide validation of one's feelings, thereby decreasing perceived deviance and increasing self-esteem. This may then allow one to seek out experts who are more knowledgeable, who may also be sympathetic (as was the case in this research). Thoits (1985) similarly suggests that others' validation of one's deviant reactions serves a support function of providing understanding and acceptance.

3. Accepting Self

When guilt feelings arise from conflict between what nurses expect of themselves and what they actually feel and do, they may resolve their dissonant feelings by changing their expectations. This was particularly evident with two nurses, who describe how they came to accept their "less than perfect natures". D4, for example, discusses her inability to fully accept the patient's lifestyle and her belief that she will always be a bit afraid of AIDS but "I've accepted that about myself. That you still feel like a hypocrite, but you know where you come from". She attributes her attitudes to her own socialization as a child and young adult and maintains that such attitudes are difficult, if not impossible, to change. Attributing her feelings to situational factors that she perceives are "out of her control" (unchangeable), rather than to dispositional factors, allows her to accept herself and to preserve her self-esteem. Similarly, D7, when questioning herself about why she was putting herself at risk and the occasional resentment she feels for patients, states:

> But as I've grown up and matured, I realize it's okay sometimes to feel angry at these people or resentful, it's just a healthy thing, as long as you're able to work through it. And most of us seem to be able to deal with that pretty well...Now I can say I feel okay with feeling these feelings, 'cause they always blow over. If you have a bad night or if I snap at a patient because he makes me angry, it's okay. 'Cause lots of times they do and they later say I'm sorry. And then I'm human too, so I say I'm sorry, too...In a broad sense I've learned that it's okay just to be me. And I don't have to be someone else, go to work, and put on this totally professional front.

Regarding her expectations of herself as a nurse, she says:

> In a way I don't expect so much [of myself], just...most of it comes naturally as a person. You just be yourself. [It's more okay to be less than perfect?] Exactly, that's [it] exactly...It's okay not to be perfect, It's okay to be angry, sad, happy. You don't have to be perfect all the time. We all get frightened.

An influencing factor in accepting oneself may have been the appraisal support received by those with the formal authority to provide evaluative assessments of performance. Many nurses remarked on the support provided by their nurse manager. Consider D4's comments about her perceptions of being heard and accepted by the nurse manager:

> When I told her that about how I couldn't handle the sexuality part, no problem...She didn't make me feel like I was wrong. And she went...about doing something about it. I felt I could tell her anything...I probably could've went to her,

> once I got to know her, I could've went to her at the very first and said, look, this is making me crazy...like I'm terrified of these people. And she would've helped me through it. She was excellent. And after I talked to her about the sexuality part, I wasn't afraid to tell her how I felt about any of them, about any little thing and she accepted it. She was really good. So I was never afraid to tell her after that. And that helps, man that makes a big difference. When you know you don't have to do everything. Like there's sometimes you can't accept whatever. And she'll support you. That's a big added plus.

In sum, by reinterpreting the situation that leads to their discrepant feelings, these nurses permit themselves to retain existing feelings and to see them as appropriate, given the circumstances. In short, they justify their discrepant feelings (Thoits, 1985).

4. Changing Self

Discrepancy between how one really feels and how one perceives one ought to feel can also become the motivating force for change. One nurse recalled that her feelings of discomfort were generated by inconsistencies between her feelings about the patients and her expectations that these were unacceptable from a professional standpoint. She describes how the realization of this dissonance motivated her to change her attitudes to make them more consistent with the professional norm:

> D2: I think actually I can look back, and it was almost at a point in time--like I can't think back to a particular day or anything like that. But it was one day I started to think that the way I was looking at [caring for PWAs] was wrong and it was very immature...it wasn't healthy for me or for them, and that I was here and I was going to be looking after them. I realized that I had to come to terms with what I could see happening inside myself, I was resistant and hostile...I didn't like what I was seeing [about myself]...Like I didn't do it on the outside at all. Like I was professional. But on the inside I felt a bit hostile and angry. Those feelings can be there even if you think you're not showing them. And that was what I had to deal with, was those feelings 'cause I know they were there and if I was going to continue looking after these patients, it wasn't okay to have these feelings.

These statements suggest that "impression management" may not always be sufficient to deliver quality care nor to preserve professional self-esteem. Instead, inappropriate feelings may have to be changed. She describes how "admitting her feelings" eventually led to a changed attitude:

> Once you admit it...like maybe it's a decision, maybe you have to decide that I don't want to be this way or...you seek out other people to support that at that point in time because there certainly were lots of people around who could have done that.

> but I guess I chose...not to have those feelings, and that I didn't want those, and that opened me up to start growing.

These last comments are instructive from a cognitive dissonance perspective (Festinger, 1957). Cognitive disssonance may be reduced either by selective attention to information that supports existing cognitions or by changing existing cognitions to make them less contradictory with competing cognitions. D2's comments imply that she could have reduced her dissonance by selectively seeking out those who supported her existing "negative" view of PWAs. She "chose", however, to focus on her professional culture as the appropriate "reference group" to determine the appropriateness of her feelings. In order to decrease the dissonance this created, she "changed" her existing cognitions to more closely approximate the "professional" expectations. Moreover, the perceived incompatibility of her negative feelings with the performance of quality nursing care may have facilitated the change to more positive attitudes.

5. Distancing

In contrast to those nurses who maintain their self-esteem by accepting themselves or changing their feelings, D13 copes with her conflicting feelings by "distancing" and becoming more "task-oriented". She states:

> I don't really resolve them [feelings]. I just live from day to day and I'm going to work and...put in my twelve hours and go home. I'm just trying to become more accepting of it, and just realize it's a fact of life, and just relax... It's like changing an entire attitude that you've probably lived with for your whole life.

This nurse manifests a conflict in caring for patients largely because she has not resolved the issue of "justifying the risk". Her perceptions of her professional obligations admonish her to accept and care for all patients, yet the manner in which these patients become infected repulse her. In contrast to those nurses who have come to accept the person regardless of lifestyle, she has difficulty separating the person from his behavior. This personal-professional conflict creates feelings of embarrassment. Her appraisal that such feelings are difficult to change leads to a coping strategy of avoidance. That is, she cognitively manipulates the threatening situation by removing attention from it:

> I don't deal with it. I just kind of let it stay there. And just think with time it'll go away. I feel less embarrassed, I guess as time goes on, the feeling decreases...if you allow it to...I guess if I were to like really dwell on it, I would probably still feel the same way, but...I try to be easy-going, and let time pass and...it'll go away. Maybe I'm a dreamer.

In short, her conflict results from her inability to justify her discrepant feelings or, alternatively, to change her personal feelings to more closely approximate the "professional feeling rules" (Hochschild, 1979) she perceives as appropriate to the situation.

6. Summary

Nurses employed a variety of strategies to maintain their professional self-esteem. These strategies may be viewed as solutions to a professional-personal conflict that arises when the professional "feeling" rules are discrepant with the nurses' experienced feelings. More specifically, conflict often occurred when nurses did not feel a sense of control over risk and was therefore most evident in their early encounters with PWAs. Discrepant expectations led to the need to manage the emotions of guilt, shame, and embarrassment. Nurses' efforts to manage these emotions were viewed from the perspective of cognitive dissonance theory, from the more middle-range theories of Hochschild's concept of emotion-work, and Goffman's dramaturgical analysis of impression management. Nurses work to preserve their professional self-image not only to others but also to themselves. To preserve their image as caregivers to patients they "act as if" they feel unafraid. This in itself, however, can lead to feelings of guilt and shame and the fear of becoming "discredited" to the patient should the behavioral expression fail. The main strategy nurses used to preserve their image to their coworkers was concealing their fear. Strategies to preserve their image to themselves (and thereby reduce guilt and shame) included normalizing their feelings, accepting their discrepant feelings, changing their feelings, and distancing from the dissonance itself. In addition to these more deliberate strategies to reduce dissonance, nurses, over time, decreased their feelings of fear and nonacceptance by the strategies referred to in previous chapters. This would result in reduced dissonance as their own feelings are brought closer to their expectations.

B. MANAGING SIGNIFICANT OTHERS' RESPONSES

Nurses not only may have to convey to their patients and often their coworkers that they can manage their concerns about exposure to HIV but also may have to reassure others outside their work situation, particularly their families, that they are at minimal risk for acquiring HIV infection and AIDS. Because of the sexual route of transmission of HIV, those intimately involved in the nurses' lives are also potentially at risk should the nurse become infected. The media attention surrounding AIDS combined with the novelty and uncertainty of the illness have the potential to create fear and anxiety in the public's mind. Moreover, the stigma associated with those most commonly inflicted with the disease influences how the public, including the family, values the nurses' role in caring for PWAs. Nurses, therefore, may need to convince others that they are at minimal personal risk, and that the small, but nevertheless present, risk is "justified". In short, they need to convey to their significant others that risk is both manageable and meaningful.

The context of public attitudes toward HCWs' risk is provided by a recent survey of a representative sample of adult residents in the city in which the study nurses work (Northcott & Reutter, 1991). This survey revealed that over half of the respondents would be concerned about one of their family members nursing a PWA. The extent of this concern is reflected in the respondents' high level of support for the screening of HCWs (80%) and the screening of hospital patients (67%). A possible reason for this concern is suggested by the finding that almost half of the sample (48%) felt that medical science does not know enough about AIDS to protect the public from the disease. Finally, this same study found that a large majority of respondents have negative attitudes toward homosexual relationships. One half of the sample strongly disapproved (7 on a 7-point scale) of two men or two women openly living together in a homosexual relationship, 64% disapproved to at least some degree (5,6 or 7 on the 7-point scale), 22% neither approved or disapproved, and only a small minority (13%) approved. In short, these study results suggest that the public perceives health care workers to be at risk. Moreover, the majority of respondents display negative attitudes toward those for whom nurses may be caring.

In the present study, all of the nurses who had a spouse or partner indicated that their partners were aware that they were caring for PWAs. Moreover, immediate families were often also aware, particularly in those situations where nurses did not currently have a sexual partner. Only four of the nurses indicated that they had not experienced any concern from at least one family member at some point in their caring for PWAs. While the risk of contagion was the dominant concern expressed by the families, eight of the nurses also admitted that their families perhaps did not value their work because of their attitude towards homosexual men and IV drug users. Nurses employed three major types of strategies to manage their families' concerns: reassuring others of minimal risk, not talking about their work, and defending the nurses' work. These strategies reflect efforts to maintain some sense of control over their families' perceptions of, and reactions to, their work so that families would "accept" and hopefully "support" their caring for PWAs.

1. Reassuring Others Of Minimal Risk

Nurses used several strategies to reassure others that the risk of occupational exposure to HIV was minimal. Sharing information about risk was a major strategy used to allay family anxieties. Information shared was of a reassuring nature, often in terms of how difficult it is to acquire HIV infection because of the low infectivity of the virus and its mode of transmission. D2 explains:

> I think they [my family] were concerned, but as I gained knowledge I shared that with them about why they didn't need to worry...I think I've almost gone through my little lecture spiel about how it's transmitted, and how it's a fragile virus, and that it doesn't live long on surfaces, and so that you really have to come in contact with either blood or semen, those are the big risks. Especially with my mom, I have really gone over exactly all the things that I would tell nurses about how it is spread and...how we protect outselves, and why we're not concerned.

Similarly, D5 describes the teaching she has done with her husband and parents:

> I've really tried to get them involved and explain to them, bring home literature and books...I got involved in an AIDS conference...and that brought me home a lot of literature, and of course, it was exciting for me because it was my work, and I came home and I told my husband all about it, and he seemed to be wanting to know more about it 'cause he was also fearful for me...A lot of times they have these preconceived notions that casual contact will give you AIDS...You just have to

explain to them where it developed, how it developed, and how it's transmitted.

In addition to conveying that risk is minimal because of the low infectivity of HIV, nurses also present an image that in spite of minimal risk they nevertheless are "very careful" in their use of precautions. Moreover, those nurses who routinely care for patients assert that both "being careful" and "being familiar" protect them from exposure:

> D3: I don't talk about my work very often. But sometimes I do. And he [my husband] would be so distressed...He worried about me a great deal. It bothered him...even after I'd been in it a long time...So I explained to him and showed him on the ward how we are safer that anyone else, because when these people come to our ward, we're geared...we know what the diagnosis is or suspected, we treat them accordingly. We are safer than if I was out on another ward.

She goes on to point out that he now tries to allay others' fears using the same "comparison" strategy:

> He was concerned. As I tried to explain to him why I was safe and how I was safe, then he felt better...Now he has passed that on to others when they've asked me, aren't you worried about getting it, working on that ward? And I say, no, not at all. And then he'll come on and give this little spiel. [He'll say] my wife says that she's more...safer because of knowing what it is.

In reassuring others that they and consequently their families are not at great risk, nurses "managed information" about their own fears by presenting a "calm image". Initially, for some nurses, this meant not disclosing that they themselves were afraid. Two nurses said that they did not tell their partners about their own fears:

> D5: Because I knew he was scared already and I didn't want to tell him that I was scared. But no, I never really told him about my fears. ✓

Similarly, D4 did not tell her family that she was caring for PWAs until she became more comfortable herself. Even though she initially felt "terrified", she did not share her fears with her family. Moreover, she implies that such sharing would not have resulted in support because of her husband's feelings that homosexuals "get what they deserve". Another nurse who does share her fears and concerns with her family, nevertheless admits that she may convey an impression to her family that she is less fearful than she really is in order to protect family members from worry:

> D13: I think I come across to my family as being actually a little bit more confident than probably how I feel...I say there's things that you do and they say you're not going to get it. Because the last thing I think my parents need to be worrying about is me getting AIDS looking after an AIDS patient.

Several nurses perceive that their presentations of themselves as "calm and careful" are effective in allaying family members' anxieties. Indeed, it appeared that family members come to believe that "being careful protects" and to rely on the nurses' appraisals of minimal risk:

> D2: I don't think [my husband] has a lot of problem with it because we've talked about it...and because I'm not concerned and have explained to him why I'm not concerned, I don't think he really is...I think he thought I would be concerned if there was reason to be concerned.

Similarly, D3 talks of her sons' lack of concern for her safety:

> Oh, they don't have any qualms...If I feel safe working there, then they feel that I'm safe...They know I'll look after myself.

That their families rely on the nurses' appraisals of risk is further suggested by D6's comments about her husband's concerns:

> Well, he wasn't quite sure either because he didn't know and he said, well, I've only got you to go by, I've got you to tell me. He said, well I trust you implicitly. You say it's alright and that we're going to be alright. That's fine. I have no qualms with it.

Some nurses' families, however, are not so easily convinced of their safety. D9 describes her husband's protective feelings despite her reassurances to him that she is at minimal risk:

> His feelings on this would be very protective. Like I don't want you to be exposed to this--very protective. But he understands that I do take precautions...He understands that the risk is minimal. But they still have...this feeling that...be careful, like I don't want you to get it...I want you to be supercautious...He doesn't say I don't want you working with those people. He would never say that.

D5 also related that her husband remains concerned and that she continues to reassure him of her vigilance. In fact, she perceives that his concern for her safety has changed very little since she began caring for PWAs, in spite of the information she has shared with him.

In one of the few studies that briefly addresses how nurses interpret their work to family and friends, Lessor and Jurich (1986) describe coping strategies similar to those mentioned above. HCWs used downward social comparisons to decrease their vulnerability to risk, emphasizing that AIDS is acquired predominantly by sexual contact with numerous partners and often occurs in those with a history of hepatitis and other sexually-transmitted diseases. In negotiating with family over acceptable risk levels, HCWs appealed to the data that no HCWs had developed AIDS at that point in time.

2. Not Talking About It

Several nurses stated that they do not talk to any great extent with their families about their work with PWAs. For two nurses this seemed to be a deliberate strategy to prevent conflict because the nurses' families did not support or accept their working with PWAs. For D4, this lack of support was perceived to be due more to her spouse's feelings towards homosexuals rather than to the risk of contagion per se:

> But I honestly don't think he thinks they're worth my time...that they should be let to go. That's an awful thing to say...He doesn't care for homosexuals. He thinks it's wrong and that they're all degenerates and they're getting what they deserve...So he's of no support whatsoever. Like I don't even speak about them because he has no sympathy for them whatsoever. And that's just out and out blunt truthful...so there's no sense me pursuing it and making him unhappy too, so I don't...I don't put it up in his face either...or constantly remind him of what I do...He doesn't want to hear it. And it upsets him when he does. I just don't bring it home at all.

She goes on to describe a situation where this "management of information" (Goffman, 1963) inadvertently fails, and her now "discredited" status spreads to despoil her husband's identity (Hilbourne, 1973). In this situation she was attending an AIDS conference and was involved in an interview that was later broadcast on the TV local news. Her husband's friends at the golf course saw this broadcast, and subsequently she became a "source of embarrassment" to her husband:

> Steve [a pseudonym] was not happy with me. Not at all...and his friends from the golf course were not impressed either. I know poor Steve took an awful ribbing of it. I never in a hundred years dreamt that it would be on T.V.

Her silence about her work extended to not disclosing the HIV exposures she incurred at work, one from a patient whose HIV status was unknown and another from a PWA.

D7 also stated that the subject of AIDS is not addressed in her home, although the extent and concerns of her silence are different. She shared her feelings and concerns about her exposure with her family, and although they supported her to get tested, she believes that her returning to work following this experience may have influenced how her father now feels toward her work. She discusses her family's response:

> My mom's a nurse...she works with AIDS patients too. And we haven't talked a lot about it, but of course she understands you take precautions...she's very factual about it. But I know it bothers my dad. And he used to say, well just take these people and lock them up somewhere...he's afraid that we don't know enough about it, about the mode of transmission, that someday we're going to find out, yes, you can get it just from breathing on somebody. And he's afraid for myself and my mom, of course...He's concerned because of what I went through, and he knew all my feelings. And he doesn't want me to get hurt in any way, so he's being a protective father. And I'm not going to condemn him for that.

They appear to have reached a consensus to be silent about their disagreement. She has attempted to present her work as meaningful and the risk as manageable. She explains:

> I've told him before, I enjoy working there--that's all there is to it. We take precautions, so trust me. But he doesn't harp on it...It's not brought up a lot...It is an uncomfortable subject in our home...it's a forbidden, forgotten subject between us.

While this silence "maintains the peace" and she has accepted her father's concern, she regrets that it closes doors to a source of potential and actual support:

> He's not a person I would go to if I ever needed to talk about work or anything...He was furious [when I returned to the unit] so he gave me no support at all going back. It was hard. And I wish that I had his support. But that's okay.

While the above nurses do not discuss their work in order to prevent conflict, others contend that not talking about work results more from a feeling that their families share no common ground of interest or even of concern. Moreover, several nurses suggest that this silence may reflect a general family communication pattern rather than the issue of AIDS itself. For example, D11 reflects on her family's "unconcern" about her working with PWAs:

> [When I told them, they seemed interested but] I don't think they wanted a lot of knowledge...so I didn't give them a whole lot...Maybe they were concerned but they never told me. Maybe it's just the family I come from. [We] don't express a whole

> lot...My family's not a very vocal family...Well, that's what you do but they don't ask you what you're doing, like they don't ask me what I do on a daily basis...and I don't volunteer that information...And if I start telling them, then [I have to be] aware of their own comfort level.

Another states, "My family dynamics are very different...you go to work but you don't talk about it...my family has not really wanted to hear about my job."

D12, who has worked with PWAs for many years, discusses general issues about work such as his coworkers and the politics and "bureaucracy" but does not talk about patients. In fact, he maintains that his partner "hasn't got the faintest idea what I do". His partner was not aware that he was caring for PWAs, but "he kind of picked it up...in things I was saying", but has "no problem with it". He states:

> I've dreamt of some of my patients, and have created a miracle cure...But it just feels so heavy that I don't talk about it at home, I don't get the emotional support for that part of my job from home.

While nurses may perceive that families cannot understand their situation sufficiently to provide support, not talking about work may also reflect the need to separate work from home in an effort to distance themselves psychologically from the emotional strain of caring for patients (as discussed previously).

3. Defending the Nurses' Work

In contrast to those nurses who do not talk about work, some nurses discuss with their spouses and families not only the minimal risk of contagion but also the meaning and satisfaction they derive from their work. Most often, this seemed to relate to the nurses' acceptance of patients and the caring relationships they develop. For D5, this "presentation of work" appeared to be a crucial factor in her husband's eventual support:

> I think when I kept coming home and saying, well, this happened to me and this happened to me, and it really gave me a good feeling, and I kept giving him more information, and he knew how satisfied I was, I think he then became more comfortable...I think he saw that I was coming home and saying this and that...and it was all positive and he saw that I enjoy the work there...I think just sharing a death experience with him...I often come home and say, one of our AIDS patients died today and it was really tough...And when I come home and tell him that, he can tell, he said, that...I really do have a close relationship with some of the patients, and he can see the pain in my eyes. So he's there as a good support, too. It is

> something that we've had to work through. It wasn't instant support.

She underscores the importance of projecting a positive impression:

> I think it's with any job, if you come home every day and be swearing about this, that, and the other person and what's wrong in your day and all these negative kinds of things, then I think the person who's listening to you is sitting there saying well why are you doing what you're doing?

While she cannot point to anything specific that has contributed to her husband's support, it appears this may be related, in part, to a changed attitude toward the people for whom she cares. This in turn helped him to see the value of her work:

> I don't know if it's anything specific...Just for him to hear me come home and talk about the special relationships that people have...I think he's still quite a homophobic person, as the rest of society is. But I think he understands what I'm doing and why I'm doing it... and the education I think again really helped him.

D7's response to others also included a presentation of the risk as manageable and meaningful. In her response to her boyfriend's concern, she emphasizes both the element of choice and her professional commitment to care for all patients:

> There was one boyfriend in particular, it really bothered him. And he used to quiz me a lot. Well, did I wear gloves for this, and what do you do if...And he was afraid for himself, I guess. [How did you respond?] I usually get really defensive...I'd say, well, these people need care just as much as anybody else, and if I choose to work there, that's my decision. We take precautions.

There are several other examples of nurses' attempts to convince others of the value of their work. Most of these attempts relate to "defending" the patient's right to quality care and counteracting the stigma of PWAs. D9 describes how her own feelings about homosexuality are discrepant with those of her husband:

> He doesn't have as much empathy as I do, of course, for the homosexual population. He does have some of the feelings that they deserve this, and we do argue about it...I say, well, I don't believe...anyone deserves it. But he certainly does have a sense that if that's the kind of behavior they want to carry on, then if they get it, then it's almost too bad...they're engaging in that kind of behaviour and they know it's a risk, then if they get it, then he doesn't have a lot of empathy for them. It's the same thing as a drug abuser, he wouldn't have as much empathy as I would towards the person. He said if they want to do that to themselves, and if they get the disease, then that's too bad. That's the way he feels.

She denies that these discrepant feelings influence her work and normalizes the situation by comparing herself with others:

> Because that's something that a lot of health professionals differ [from their spouses' feelings about nurses' caring for PWAs]. That's the feeling I get...that a lot of spouses aren't supportive...they know that someone has to care for them [PWAs] and they know that you're a nurse. But they still don't want it to be you.

Another nurse responds to her family's "homophobia" by becoming an "advocate" for the patient. In response to her mother's question of "aren't you afraid of them?" D10 states:

> "No...as a matter of fact, I think they're very wonderful, caring, giving people...I'd just as soon have them for my friends than some of the friends I have. They're very caring and very considerate." She just can't fathom that.

She goes on to say that her mother's fears of the disease may come from her perception that homosexuals are "very unbalanced, very sick people".

Those nurses who themselves have more "negative" views about PWAs appear to discuss their feelings and fears with their families more freely. For example, D1 describes how she initially told her boyfriend that she felt uneasy looking after PWAs. Similarly, D13 expresses her fears to her boyfriend and family, even though she admits she may appear "more confident" than she really feels. She does, however, appear to derive emotional support from them:

> I think it's good for your mental health to get it out...[My boyfriend] doesn't really say very much about anything. He listens to me when I talk about it...and he'll give me a hug.

Even though she may agree with their evaluative views on homosexuality, she, too, "defends" the patients to her family saying "just how tragic it really is...what they go through".

Although the above examples suggest that nurses' families may not "value" their work, the nurses' self-reported consequences of this attitude are perceived to be minimal in terms of family relationships and the way the nurses view their work. In the two situations that appear to present the greatest conflict, an agreed upon silence, however, may close doors to a source of support. While D7 regrets this, she appears to have "accepted" the situation. Perhaps a facilitating factor in this acceptance is her perception of the "meaningfulness" of her work. D4 also appears to have "accepted" her husband's feelings and maintains that they do not interfere with her own feelings towards her work. She attributes this to her strong "sense of self" and the "meaningfulness" of her work:

> [My husband's attitude] is not enough to make me change my job or anything, because whatever I do I have to do and do it for me, not for him. I do it for me and what I like, or what I enjoy. And so I wouldn't ever let it change me that way...I like what I do...and I'm very secure in what I do, so it doesn't bother me at all, no.

In response to the question of how it influences her relationship with him, she replies, "oh, a little bit, I think", but goes on to say that he has never been really supportive of her profession, "yet I was always a nurse".

On the other hand, one nurse admits that her husband's concerns for her safety did influence how she felt about her work initially. She denies, however, that his concerns have affected their personal relationship and attributes this in part to her ability to separate work from family life and to her husband's appreciation of the satisfaction she derives from her work.

4. Summary

Nurses perceive that their families' responses do not affect them to any great extent. This, in part, may be due to the selective nature of the sample. Those nurses who presently work with patients may have "resolved" the issue to their satisfaction. Or perhaps if partners object strongly, nurses do not continue to care for PWAs. Nevertheless, these interviews reveal that nurses have "worked at" reassuring their families that they are "safe". They present the risk as manageable by projecting the attitude that "being careful protects". They convey reassuring information about the low infectivity of HIV, and they even may conceal their own fears in an effort to protect their families from worry.

Of considerable interest is the fact that it may not be the risk per se but rather the family's feelings toward those who have AIDS that contributes to conflict. Not valuing the patient may make even a small risk unacceptable. Dissonant attitudes between nurses and their partners about the value of their work appeared to create situations of "nonsupport". Here again, nurses work to convince their families that their work is meaningful and worthwhile. They appeal to their professional commitment that patients need and deserve care and convey that they find their work personally satisfying. In this regard, Arras (1988) suggests that family members may not value the nurse's work because they cannot identify with PWAs. Therefore, they may be less likely to praise the dedication to duty. On the other hand, they value their family whom they see as potentially becoming exposed. In a survey of nurses who had cared for PWAs, Brennan (1988) reported that only 21% of nurses' families were "accepting" of nurses' caring for PWAs, while 12% were angry, and only 6% were "proud" of the nurses' work. Brennan's study, however, did not describe nurses' attempts to deal with these concerns nor did it address how their families' attitudes influenced the nurses' own perceptions of their work.

C. MANAGING "NONSIGNIFICANT" OTHERS' RESPONSES

Several nurses described their responses to the reactions of other than family members to their caring for PWAs. These other people included nurses who did not care for PWAs and others outside the hospital setting. Although others' responses did not appear to pose a major concern for the majority of nurses, examples of "caretaker's stigma" (Feinblum, 1986) are evident. Nurses' responses to these reactions often involved not only reassuring others that they were not "infectious" but also "justifying" their work with PWAs. In the presentation of their work to others, nurses incorporated three major information management strategies: minimizing the risk of contagion, selective disclosure of information, and convincing others of the value of their work.

1. Reassuring Others of Minimal Risk

Others' reactions to risk ranged from questions about the nurses' own safety to behaviors that suggested that nurses may be a danger to others. Several nurses attributed the public's fear to the conflicting and often sensational information provided by the media. For example, D4 states:

> The dumb stories in the papers and that are what scares people. They'll read the

> headlines that "Virus is alive after two weeks in a petri dish". That's the kind of headlines people see, and how do they know better until either they read it or it's more fully explained.

When confronted with others' concerns, nurses use several strategies to reassure others that they are "safe". They convey confidence in their ability to protect themselves through the use of precautions and focus on the low infectivity of HIV. In responding to others' questions about being afraid of developing AIDS, D11's focus on "being careful" is typical of other nurses' responses:

> I tell them, well, not really--at least I know what I'm dealing with. And I take the precautions...I am concerned but I do take precautions and I'm careful...I don't think it's any worse than...I haven't caught any other diseases and I've been working with a lot of different infections.

Nurses also focus on the low infectivity of HIV and the unlikelihood of transmission by casual contact:

> D4: Well, I explain to them that the AIDS virus isn't a strong virus, and that you can't pick it up off a doorknob...And that even if one little virus did get into your blood system, it's not going to be enough to give you AIDS...That I can't pick it up by casual acquaintances...and that the patients' families are not getting it.

Another nurse appeals to her commitment to her own life in an effort to assure her friend that she is not "infectious". She describes the varied reactions of her friends and her own response to their reactions:

> D5: When I first had my interview, I was working in a rural hospital, and some of my friends there said, that's great. And others of them said, oh God, how could you stand working with someone who has AIDS? What if you get it? And then after I had moved here and started working, I had one girl specifically that I remember that...I was having some kind of drink, and she didn't even want to drink from the [same] glass I did because she thought, well, you work with AIDS patients, maybe, just maybe...And that really surprised me 'cause I hadn't even thought of anything like that...I tried to tell her, do you think I'd be jeopardizing my life...if I thought I was going to catch AIDS ? Do you think I'd really be there? But she didn't understand...she didn't know enough about the disease.

The concern expressed by her friend about contagion via casual contact was an exception among those interviewed.

2. Selective Disclosure of Information

Several nurses cope with the anticipated response of the public by not disclosing the details of their work in order to avoid dealing with others' reactions in relation to both the risk of contagion and attitudes toward those with AIDS. The underlying reason for this silence appears to be a perception that the energy required to deal with these issues outweighs the benefits in terms of the results it may achieve. For some nurses, misconceptions are perceived to be deep-rooted and seemingly "impenetrable" by any information the nurse might provide. This resulted in an attitude of "why bother?" D12 describes his situation when first caring for PWAs at the hospital:

> There were some instances when they [other hospital employees] found out where I worked, they moved away from me...Physically removed themselves from my presence. Because I worked with [whispers] AIDS. [What did you do?] That's their problem. What can you do? Their minds are closed: you can't educate, you can't teach, you can't do nothing. Fine. If they ever get up against it, we are the resource people...I actually have no time to waste on somebody who's close-minded. My energies are best directed toward the people I work with and toward the patients I have.

D10 also implies that the energy required to change people's ideas is often too great given the other demands to be dealt with. She talks about the negative comments she receives from others about homosexuals:

> And I know it comes from ignorance, but sometimes I don't have the energy to say, well, you're wrong, and challenge them. And to me that bothers me because I'd like to challenge them. But some days I just have to give in and say, no, I can't do that today.

For still others, it appears that a "consensus" is reached that the topic is taboo. D8, in speaking about a nursing friend's prejudice, states:

> I don't talk, we don't bring up the subject...You sit down and you talk to her and if you mentioned you looked after such and such a patient that day, you know if she's around it's like big argument.

In an attempt to avert the need to deal with others' concerns, several nurses indicated that, based on their previous experiences, they now do not disclose that they work with PWAs. Moreover, it appears that even indicating that one works on Infectious Diseases (ID) may require too much explanation, because, for some, ID has become synonymous with

AIDS. For example, D5 states that "you have all kinds of comments from people when you tell them that you work on ID [such as] 'that might be kind of scary'". Similarly, D6 reports that because of others' initial response of "backing away" when she told them that she works with PWAs, she now informs people only that she works on a medical floor. D11 also describes a literal backing away by others when they first found out that she cared for PWAs. This was followed by a curiosity, particularly about homosexual patients, and a lack of understanding about why she works with PWAs:

> And usually now if people ask me where I work, I don't volunteer that information. I say I work on a medical floor or I work in ID and then, if they can't figure it out from there-like I don't tell them I work with AIDS patients...just because people's questions ...sometimes seem so misguided, and I feel I don't want to have to go through explaining it all.

The most striking example of "courtesy stigma" (Goffman, 1963) involved D4. She described how people at the golf course would not sit at her table when they found out where she worked. Even today, she maintains that people are "sort of joking but they're not" and that "you can almost feel them pull back a bit". She initially became very angry but has come to accept their reaction based on her own emotional reactions when she first started caring for PWAs. She also believes that their reactions are based on an inadequate understanding of the disease:

> It's not fair to judge them. It's only because they don't understand. And until you understand about a virus and you can think in those kind of terms, then you can't not be afraid because you can't understand...And if they can't handle it, that's not my problem, that's theirs.

Her response to those at the golf course was to avoid interacting with them. She describes her decision:

> Like even the pro said to me that he was embarrassed to know that it was me on [T.V]...I said well that's the way it is. But then I don't go out there. I never really liked it out there that much anyway. I don't go out there very much anymore. But that's my choice.

The response to this "enacted" stigma (Scambler, 1984) is a "felt stigma" that her own family also may be stigmatized. She responds by concealing information about her work in order to protect her family from the responses she perceives they may get from others. For example, she advises her daughters not to tell others that she works with PWAs. Moreover, she refused her daughter's request to speak at her school as a nurse on career day "on the grounds that I didn't want her friends to know that I worked with AIDS...That was three years ago, but even two years ago it was too new. And people are still too afraid that I didn't want anybody judging her because of me". While she admits that her children have not had to deal with rejection, she bases her "felt" stigma on her own experience:

> At the time she was going to a new school and...I just didn't feel it was something that would do her any good...because I had negative feedback from the golf course...and I didn't want to put her in that position.

The media coverage of the public's negative reaction to children with AIDS attending school was an influencing factor in her desire to protect her children. She states, "I just didn't want anything to happen to my kids because of what I do".

In sum, this nurse responds to courtesy stigma by avoiding disclosure of her association with PWAs. Jones et al. (1984) suggest that one's occupation may involve a long term association with "marked" people and that this association may impart significant strain. They distinguish between rejection caused by the actual work one does and rejection due to association with the "marked" individual, although it may be difficult in practice to tell how much each of these factors contributes to the rejection. In the case of nurses caring for PWAs, there is potential rejection arising from the actual work done, because it poses a threat to those who fear contagion. As well, however, others appear to reject nurses because of whom they work with. While it is often assumed that association with marked individuals is considered quite appropriate in an occupational role, there is some evidence that occupational groups may feel stigmatized because they work with stigmatized clients. For example, it has been reported that mental health professionals are held in significantly lower regard than correspondingly similar professionals who are not associated with mental patients (Jones et al., 1984). When the association is with those who are stigmatized from both a moral perspective and from the point of physical contagion, the rejection of the HCW may be substantial.

3. Convincing Others of the Value of Work

As indicated in the previous section, nurses often found themselves needing to defend the kinds of patients for whom they care. This usually involved correcting misinformation about homosexuals and advocating their right to quality care. Several nurses commented on the "curiosity" of the public in terms of the disease itself and what the patients were like ("were they gay, what do they look like"). They note that it is often men who are quick to criticize the homosexual community with such statements as "they should be on a deserted island". While such public attitudes are disconcerting, one nurse's most vehement anger is reserved for those nurses she has encountered in the hospital setting who are "militant and quick to condemn" homosexuals. D1, who herself displays a negative attitude to homosexuals, defends those for whom she cares if only to preserve her own self-image:

> And I don't like to scare people away, and I don't want to present myself as an uncaring nurse, so...I give them the information that they'd want to hear. [When probed further] Well, I wouldn't say, oh, yeah, and I just didn't want to work with him. I don't say that. I mean, I might feel that way, and I say, yes, well, you see, they're just like you and I.

In addition to reacting to negative comments, nurses may also take the initiative in attempting to convey the value of their work. D7 gave examples of teaching and talking with two close friends one of whom "loves to hear stories about [my work]." She observes that "her way of thinking is a lot better now...more open, less judgmental...more knowledgeable". On the other hand, she has found that in her attempts to reassure others of minimal risk, they were often uninterested in the patients themselves:

> Most people just sort of say, oh well...I'm sure you wear gloves. And they really don't care beyond that. But I remember one time, I was trying to have a conversation with someone and teach him...he was interested in knowing how it was transmitted and how you protect yourself. And then I wanted to tell him more, about how we care for our patients once they have it. And he said, well, I don't care about that, as long as I know how I'm not going to get it, I really couldn't care less about anybody else. And that really upset me.

4. Summary

Goffman's (1963) dramaturgical analysis of stigma provides a framework for understanding the dynamics that may be involved in nurses' responses to others' concerns. Nurses, by virtue of caring for PWAs, may themselves be "discredited" to those who fear contagion or to those who do not "accept" the patients for whom they care. Nurses, therefore, engage in strategies to "disavow" this deviance through their efforts to reassure others that they are not at risk (and therefore are not putting others at risk) and that their patients pose no "moral" threat but, instead, are deserving of care. In those situations where nurses anticipate distress should their "status" as AIDS caregivers be revealed, they "pass" by selectively disclosing information. In coping with others' concerns, nurses display a social responsibility in counteracting fear and prejudice (Peterson, 1989). They also, however, employ measures that will protect them (and their families) from the emotional distress the demands of others may create. Selective nondisclosure serves a protective function in providing a sense of control over the perceptions and responses of others.

IX. MANAGING EXPOSURE

Bosk and Frader (1990) state that "reports of individual physicians anxiously awaiting the results of HIV tests after needle sticks have now become a staple of the oral culture of academic medical centers" (p. 265). These "reports", however, have not been documented in any systematic way. To the best of my knowledge, there are no research studies that have explored in depth HCWs' responses to exposures. While statistical evidence accumulates about the number of HCWs who have been exposed, the kinds of exposures, and the risk estimates associated with these exposures, we know very little about how HCWs feel when exposed and how they cope with exposure. Anecdotal evidence suggests that these individuals often live in fear until the final results are received. Friedland (1989) recalls the concerns of one doctor who sought his advice:

> I slashed my hand last night with a needle while I was doing a spinal tap on a woman with a history of IV drug use. I can't think straight. I couldn't sleep all night. What should I do? What should I tell my wife? (p. 68).

Strickler (1988) reports that most of the HCWs exposed at the Toronto General Hospital found little comfort or reassurance from the world-wide experience of low infectivity. He states that while the management of HIV exposure has become more structured and enhanced by the availability of antibody serology, "the anxiety and fear of exposed persons, not only for themselves but also for their families, remains a significant challenge to us. For some of these persons, there is simply no adequate reassurance to allay their feelings, and their lives are disrupted for many months thereafter" (p. 145).

Although the major emphasis of this thesis is on coping with the risk of exposure, several nurses who were interviewed had received exposures. In this chapter I will relate their feelings and coping strategies. First, I will discuss briefly nurses' perceptions of how they would respond if they were to become exposed. The remainder of this chapter will be a discussion of nurses' actual exposures.

A. MANAGING HYPOTHETICAL EXPOSURE

1. Perception of Risk

Over time, most nurses come to view risk as meaningful and manageable. Although they retain an awareness of the risk, they display confidence in their ability to prevent exposure. When asked about the likelihood of seroconversion, most nurses perceive the risk as "low" or even "nil". When confronted with a hypothetical situation, however, nurses tend to maximize risk, focussing on possibilities rather than on the probability assessments they had previously discussed. Virtually all nurses would be "terrified" if they were exposed to blood or body fluid of HIV-infected patients. Indeed, the affective dimension of risk exposure is now characterized by fear and worry, and the cognitive assessment of low probability of harm is all but ignored. Consider D6's comments in spite of her earlier assertion that the chances of seroconverting are "next to nil":

> I'd be very worried. Oh definitely. You'd be silly not to. Even though the chance may be one percent that you'd get it, that one percent is one percent and you don't want that one percent...I would be very very fearful simply because it's a death sentence if you've got it.

Similarly, D7, who has been exposed previously, suggests that "probability estimates" are not reassuring when faced with actual exposure:

> If that happened to me, I don't think I could even think about what would be the chances, like I would fly right off the deep end, I can tell you that right now. At least in the beginning. In my mind the chances would be a hundred percent. No doubt.

The stakes involved in facing the implications of exposure are alluded to by D9:

> If...I stuck myself [with a needle used on an AIDS patient]...boy that would be really, really stressful to me...I'd have a really difficult time with it. I'd probably need a lot of reassurance from some medical staff...I would think it may change your life, as far as what you planned to do...You'd always feel you might be the one.

These statements indicate that the assertions underlying the threat relate to the fatal nature of the disease. Moreover, the nurses' assessments of what can be done indicate a perceived lack of control over the consequences of exposure. Furthermore, the variable incubation period adds uncertainty to an already fearful situation. D7, who has experienced one exposure, summarizes the combined effects of uncertainty and decreased control:

> And if I was ever poked with someone I knew who was [HIV], I don't know what I'd do. I'd have to go home right then 'cause my mind would just cut off, I know that...there's nothing you can do, we know there's no shots you can get...you just wait. And it can be months, and now they say years before you seroconvert to HIV positive, so what do you do all that time? I don't know.

Even those nurses who perceive a more definite incubation period display fear. D2, who has great confidence in her knowledge and skills to protect herself from exposure and perceives "low" risk of seroconversion, admits that the "waiting period" would be wrought with fear. She states, "I think I would be terrified during the phase where they're never sure, which is four to six months...I would be terrified during that period".

In short, these statements point out that the threat experienced by nurses is influenced by their perceptions of the uncertainty of the situation and by their perceptions of decreased control to alter a potentially fatal outcome with wide-ranging implications. Given that nurses perceive very little control over the consequences of exposure, it is interesting to ascertain how they foresee dealing with their fear. While I acknowledge that these are responses to hypothetical situations, nevertheless, nurses' answers to the question of how they would deal with an exposure are instructive.

2. Testing

Most nurses said that they would get tested should they be exposed. However, there was variation in the kinds of exposures that warrant testing and in the motives for testing. For example, the amount of blood or body fluid and the presence of open cuts may determine whether testing should be sought. The major motive for testing was to reduce the emotional distress nurses perceive that they would experience by *not* knowing their HIV status. The uncertainty of not knowing was in itself perceived to be stressful:

> D2: I'd be tested...like I think you would want to be tested periodically throughout that [window] phase. I'd want to know. I wouldn't want to be ignorant, if I did sero-convert.

> D5: I would go for testing...I'd want to know right away if I was going to convert.

> And I'd want my husband to know and obviously be very careful there, 'cause I wouldn't want to expose him.

For some, the responsibility to protect others would be the major incentive for testing:

> D7: There's a lot of controversy about [testing]...And I'm not involved with anybody right now, so I don't think I'd feel an incredible urge to know. But if I was, I would want to protect that person, of course.

For yet others, knowing their HIV status would help them to better plan their life:

> D11: Oh yes. For sure [I would get tested]. 'Cause I think I would like to know...for my own self so that I can take precautions to protect other people...Say I am positive well then I want to get out there and celebrate while I still am able to physically do so...Definitely I would get tested.

Finally, for D10 an additional motive would be to enhance the epidemiological knowledge about AIDS:

> I think I would get tested...and also for statistical reasons. You are followed fairly closely. And I think that's good information. And I think we need to know the seroconversion rate of health care workers. It's very, very low: it's almost nonexistent, except for the few that are out there.

For two nurses, the decision to get tested was seen as introducing further uncertainty rather than as reducing uncertainty. The negative effects of testing were perceived to outweigh the benefits. One nurse remarked that she would not get tested, even though she is one of the few nurses who mention the potential benefit of Zidovudine (AZT) in prolonging life for those who are HIV infected. She also implies that confidentiality is not her main disincentive in getting tested. Instead, her main reason for not getting tested appears to be the belief that the psychological distress that may result from the knowledge of a positive status would decrease her actual control over the progression of the disease. Maintaining control over her emotional state, then, would also increase her "actual" control over the consequences of exposure. Moreover, she minimizes her vulnerability by pointing out the decreased likelihood of seroconverting, unless the amount of blood involved was substantial:

> D4: I just don't think there'd be a benefit to it...And if you don't know--I don't think it's all psychological but I think if you have a positive attitude...it helps...whether you're sick or healthy, to keep you sick or healthy. I think it does help. I don't think it's the only factor, but I do think your mental outlook on life makes a big difference on how you feel and how you fight diseases and that...And if

> you knew you were going to be depressed, there's no possible way you couldn't be down. I suppose there's some people who are fighters and can...but this way if you didn't know you'd--hopefully continue on until it did get you.

This nurse also admitted that she would not tell her husband if she became exposed. Although she did not acknowledge his influence in her decision for testing, her decision not to inform him of exposure may have influenced her feelings about testing. Perhaps "knowing" her status would compel her to tell him, which she perceived as increasing distress. Another nurse, who had also been exposed, was ambivalent about testing because of the uncertainty which prevails despite testing. On the one hand, she admits it is hard to deal with an "unknown" status. On the other hand, the uncertain incubation period (which she now understands has been quoted to be as long as two to three years) would not provide "certainty" for some time. Interestingly, the nurses who are ambivalent about testing have both previously been exposed. However, not all nurses who were exposed are ambivalent.

The uncertain incubation period of the disease was reflected in the nurses' variable perceptions of the length of time from exposure to seroconversion. Health and Welfare Canada (1987) guidelines for managing exposures state that most individuals will seroconvert in 6-12 weeks. Nurses' views ranged from 3 days to 6 weeks, to 4-6 months, to 2-3 years. Glasner and Kaslow (1990), citing Wolinsky et al. (1988), point out that the range and distribution of incubation periods is not known, although it is assumed that periods of more than six months are probably quite unusual.

3. Disclosing

All but one of the nurses interviewed would tell their partner of their exposure, for his protection as well as for his support. One nurse anticipates her feelings:

> D5: I think I'd be so upset and scared that I'd have to tell him. We have a really good communication in the relationship, so it'd be something I definitely would tell him.

When asked to anticipate their partners' responses, however, few nurses could elaborate. This seems to indicate that nurses do not talk with their partners about the likelihood of exposure to any extent. Those nurses who said that they would not tell their families cite reasons related to their families not valuing their work because of their attitudes toward homosexuals:

> D10: I have three close friends I would tell. I wouldn't tell my family. They're rather homophobic. It would be some time before I told my family. I would consider telling my brother and sister-in-law because of their education and they're fairly comfortable with what I do.

While most nurses said that they would tell their families should they become exposed, most would be prudent disclosing this information to their coworkers, choosing to share it with those few people to whom they felt "close" and with those who would "need" to know by virtue of their position (i.e., the nurse manager). D5 explains her reasoning:

> Well I don't know [if I would tell others on the unit]. Maybe not from the beginning because I think I'd have a lot to deal with first myself. You know, I'd have to come to a pretty big realization. But...I think over time...especially if it affected your work...I think that the relationship that I have with some of the girls is close enough that I would confide that to them.

4. Assigning Blame

A few nurses indicated that they might impute blame if they were exposed. Attributing cause in the form of blame conveys a "sense of control" over the occurrence of a seemingly uncontrollable event. One nurse fears that she might be "really angry" at the patient:

> D5: I've often thought--this is very personal, but I've often thought if something like that happened, would I blame that person...blame them that they have the disease and that I poked my finger. I mean, it was me who actually did it, but maybe if I wasn't caring for AIDS patients, then it would've never happened.

This blaming may relate to the attribution of responsibility assigned to PWAs in acquiring the disease. D2, on the other hand, would assign blame to either herself or the hospital. She explains her attribution:

> If I was doing everything possible and it still happened, I would probably be angry at the hospital, even though there's probably nothing they could do...If I chose to disregard the protocol and it happened...I would probably be more angry at myself and handle it differently.

5. "Forgetting About It"

One nurse anticipates that should she become exposed, she would "try to forget about it" because she does not think she would seroconvert for five years. She suggests that "dwelling on the possibilities" would be detrimental:

> D13: And although you kind of wonder....if you think every day I wonder if I have AIDS, you can't do that. So I'd just forget about it.

6. Preventing the Consequences of Exposure: Drug Therapy

Only two of the nurses interviewed indicated that they would consider AZT therapy if they were exposed. While I did not probe those who did not volunteer information about AZT, this option did not appear to be very salient. At the time of the interviews, AZT therapy for those exposed to HIV was relatively new and the information about its use for occupational exposures may not have been available to HCWs. AZT therapy became available for exposed HCWs in Fall, 1989 at the institution in which nurses work. One nurse, who was interviewed before this time, was aware of its availability but would not consider this option because she did not wish to be tested. Two were uncertain about its availability for HCWs but would consider its use if this were an option. Another nurse who felt certain she would avail herself of this option was interviewed after the treatment became available. However, her knowledge about the protocol was very limited.

One nurse conveys a sense of control over exposure by vicariously sharing in the control offered by others, in addition to relying on her own resources:

> D10: I'd like to think that I'm a healthy individual who takes care of myself. And therefore, would be strong to carry on if I seroconvert. I think with the new drugs that are coming out and the physicians we have, I'd be well taken care of.

In summary, nurses anticipate that their reactions to exposure would be ones of fear and anxiety. They perceive the event of exposure as "aversive" with profound implications over which they perceive little control. Given the perceived lack of control in terms of preventing the progression of consequences, nurses anticipate responding in ways that allow them some control over the emotional distress such exposures would create. Most expect that they would reduce the uncertainty of their situation by being tested. On the other hand, the main reason for *not* testing appeared to be the need to avoid the adverse psychological effects that may result from a positive test result. Disclosure to family members depended on the support that nurses perceived they would receive as well as on their concern to protect their partners from exposure. Disclosure to coworkers appeared to be more limited. In the next section, I will discuss how those nurses who were "actually" exposed managed their reactions.

B. MANAGING "ACTUAL" EXPOSURE

In spite of the nurses' efforts to prevent exposure by "being careful", seven of the thirteen nurses interviewed reported that they may have been exposed to HIV-infected blood or body fluid. There was, however, considerable variation among nurses as to what constituted an "exposure" and the treatment that it warranted. This perhaps is not surprising considering the nurses' various interpretations of "what is dangerous". For example, one nurse sustained a parenteral (needlestick) exposure from a patient who was not identified as HIV infected but treated it as if he were. Others treat needlestick injuries from noninfected patients as nonexposures. Similarly, for some nurses cutaneous (skin) contact with blood is considered to be an exposure but is not deemed worthy of attention if skin is intact, whereas for others any body fluid from an HIV-infected patient is cause for concern.

Wiley et al. (1990) also found that a relatively large number of nurses (20%) reported exposure through either mucous membrane or broken skin to the blood or body fluid of an HIV-infected patient. They suggest that this high incidence may be attributed to a broad definition of the term "exposure" and "HIV-seropositive body fluids" (e.g., urine may have been included). In contrast to nurses' perceptions of what constitutes an exposure, Health and Welfare Canada (1987) guidelines advocate testing if a HCW has a parenteral (e.g., needlestick or cut) or mucous membrane (e.g., splash to the eye or mouth) exposure to blood or other body fluids, or has a cutaneous (skin) exposure involving large amounts of blood or prolonged contact with blood (especially when exposed skin is chapped, abraded, or afflicted with dermatitis) (p. 8). The policy of the study agency suggests that any exposure involving skin lesions or mucous membrane to blood or other body fluids (including needlestick injuries) should be reported to the Occupational Health Service for further evaluation.

In spite of diverse interpretations of exposure, what is interesting from a sociological perspective is that the nurse's, not the "expert's", perception of what is dangerous guides the nurse's response. The dictum "if [people] define situations as real, they are real in their consequences" (Thomas, 1928) is well illustrated in the nurses' accounts. There is variation in what nurses do in the event of exposure, in terms of both monitoring the consequences and coping with the emotional distress such events create. In spite of diverse appraisal and coping strategies, however, there are common elements and themes, particularly in terms of the functions such coping strategies serve in maintaining a sense of control.

The following summarizes the extent of exposures as perceived by the nurses themselves. This information was obtained by asking the question, "Have you ever been exposed?", thereby eliciting the nurses' own definitions of exposure. Of the seven nurses who admitted to some type of exposure, only one nurse (who received a needlestick injury) did not know the patient's HIV status at the time of exposure (the patient was subsequently found to be HIV negative). All of the others received exposure from an HIV-infected patient. Of these six persons who had some type of contact with body fluid from an HIV-infected patient, only one sustained this exposure from a needlestick injury. This same nurse also received a cutaneous exposure as did five other nurses. Of the six cutaneous contacts with blood or body fluids, two were with blood and four were with body fluid other than blood (two with urine, one with gastric fluid, one with feces). Four nurses admitted that they had been tested. One was unaware of results (as the patient was subsequently identified as HIV negative); the other three tested negative. One of these three nurses was tested primarily for personal rather than for occupational exposure.

For two of the nurses, the experience of becoming exposed was very traumatic and was characterized by high emotional intensity. Following, I will discuss the feelings elicited by the exposure and the nurses' coping efforts.

1. Perception of Risk

All of the nurses who were exposed were faced with the one big uncertainty: "Will I seroconvert?" As indicated earlier, there is a general belief among nurses that should they seroconvert they will eventually go on to develop AIDS and die.

The intensity of emotion expressed reflects the stakes involved and the nurses' appraisal of the control they perceive over the consequences of exposure. The stakes include the fatal nature of the disease and its aversive personal and social consequences. The perceived seriousness of the exposure was influenced by the type of body fluid to which the nurses were exposed. That is, the degree of fear was greater for those exposed to blood than to other body fluids. This perception of risk reflects the degree of "real danger" as assessed by "experts" (Henderson, 1989).

D1, who experienced considerable emotional distress, received a needlestick injury while reinserting a patient's IV needle into its protective cap on the IV pole. In this particular situation, unbeknown to D1, another nurse had changed the patient's needle (inserting a larger one) while leaving the sheath of the smaller needle on the pole. D1 experienced some difficulty in getting the larger needle into the small cap and inadvertently punctured her skin. At the time she did not know whether the patient was HIV infected, but because he was in hospital with a diagnosis of pneumonia, a common manifestation of AIDS, she was concerned. The initial emotions elicited by the exposure were fear and anxiety:

> I was fine then, I squeezed it out--excess blood or whatever. But it bled, and it hurt...I went and told one of the girls, and they said, well, bleed it, bleed your finger out, 'cause you never know what people have. And I thought, oh no. So that reinforced fear right now. I started to get scared, I started to shake--anxiety.

In addition to fear and anxiety, she also experienced depression as time wore on:

> The more I thought about it, the more depressed I got. I couldn't enjoy myself, I couldn't go out with people, I couldn't laugh when I'm at dinner. 'Cause this just kind of sat in the back of my head.

Additional feelings evoked were reflective of the symbolic implications of infection with bodily fluids:

> I felt awful, just inside; I felt dirty. And I used to look at other nurses and think--you're so lucky, look at how fresh you are. You're fresh on the outside and you're clean inside, too...I'm maybe fresh on the outside, but inside there's something wrong.

Another nurse, D4, sustained a needlestick injury caring for her first PWA. She accidentally exposed herself on the patient's heplock which had been left exposed by another nurse. She describes the initial terror she experienced:

> I was just sick...the inside of you just feels--the cold, stark terror...Your whole body inside just feels the terror. I sort of feel like that when I'm flying. I'm not a good flier. It's that same sort of dread. And you just sort of feel it all over you--it's weird. I was sick for days, thinking that, now I have it and now my family's going to get it.

The importance of the stakes involved is further reflected in her feelings of guilt:

> I was ready to quit. 'Cause I thought, it's bad enough if one of us [referring to her spouse and herself] die, at least the kids will have the other. But if I killed us both off...I thought the kids are not going to have a mom 'cause I was selfish and wanted to go back to work--All the little guilt trips we put on ourselves.

In contrast to the examples above, D7's initial assessment of her exposure was one of minimal risk. A few months after she began working with PWAs, she acquired a cutaneous exposure to blood when she reconnected a patient's IV. It was only later that she began to worry about her exposure and to reflect upon feelings of terror and death:

> It was no big deal. I never had any cuts or anything...I wasn't really exposed exposed. I had blood on my hand but no open areas... [then] I went through a really rough time where...I was getting pretty burnt out, and had a period of depression...and my mind started going crazy...once my mind got rolling on it, I'd got to a point where I couldn't work.

Another nurse who admits to cutaneous contact with blood states, "I suppose that constitutes an exposure" but reassures himself that because he had no open areas on his skin, he "really" doesn't think of it as such and does not perceive himself to be at risk. The other nurses who had incurred cutaneous exposures with body fluids other than blood on intact skin also experienced less intense feelings: D11 received a spray of gastric fluid on her face from a patient's gastrointestinal tube, D13 received diarrheal exposure on her hand from a ripped glove, and D10 had contact with urine from handling a patient's urinal.

2. Preventing Consequences of Exposure

Nurses' initial responses to exposures reflect efforts to effect some control over the outcome of the exposure. While most nurses felt that there was little that could be done, they did take what measures they could to minimize the effect of exposure. For example, D1 bled out the needlestick injury. D4, who suggests "there's just plain nothing you can do about it", dipped her hand in bleach available at the patient's bedside. Those nurses who incurred cutaneous exposures said that washing the exposed area with soap and water was the only method of actual control. D13, who had skin contact with feces, states:

> The only thing you can really do is you take your gloves off and wash your hands very, very, very well with soap and water. That's all you can do.

In short, there is a general feeling among those exposed that they have very little control in reducing the effect of exposure.

One nurse, however, did attempt to exert some control over her physical well-being through the cognitive coping mechanism of "thinking positively". Because of the immunosuppressive nature of HIV infection, she tried to convince herself that she must prevent stress to counteract its negative effect on her physical state:

> D1: And then another thing that kept me going was if you're too stressed, you become weak. Your immune system gets low. You can't be stressed. You have to think positive.

"Thinking positively" included trying to convince herself that she was not displaying symptoms of HIV infection. In addition to this cognitive strategy, she also used self-care measures to improve both her emotional and h physical health. For example, she bought a relaxation tape to counteract insomnia brought about by her increased anxiety and lectured herself on measures such as proper diet.

3. Reducing Fear

Given the nurses' initial appraisals of the amount of control that they could exert over the outcome of their exposures, it is not surprising that the strategies they used to decrease their sense of vulnerability were primarily directed to achieving some sense of control over the emotional distress elicited by the exposure. The responses described by those nurses who displayed the most anxiety were reminiscent of an emotional roller coaster and were characterized by a "cycling between denial and vigilance" (Horowitz, 1983). At times they were hypervigilant in their attention to the threat as they sought out information to rule out all "possibilities" of harm to decrease their sense of vulnerability. At other times, they diverted attention from the source of distress by avoiding situations that would elicit fear. In short, their attempts to maintain a balance between reassurance and vigilance were at best tenuous and always demanding. In their efforts to achieve a sense of control over the exposure, they displayed many of the responses to high levels of threat posited in Janis' (1967) model of adjustment to threat. This model suggests that increased fear leads to a heightened vigilance that is characterized by: (a) increased attention to threat-relevant events, (b) scanning for new signs of danger, (c) attending to information about the nature of the threat, (d) increased precautionary actions in response to any cue indicating the onset of danger, and (e) closer attention to internal stimuli (p. 171).

a. Ruling out harm. Exposures are perhaps unique as "victimizing" events because of the ambiguity they present. Although exposure has occurred, it is not known whether harm has been done. Moreover, experts cannot with certainty say when harm can be ruled out. In short, there is both event uncertainty (will I seroconvert ?) and temporal uncertainty (when will I know ?). Lazarus and Folkman (1984) maintain that event uncertainty is particularly stressful because it has an immobilizing effect on anticipatory coping processes. Coping in anticipation of an event's occurrence is often incompatible with strategies needed to anticipate its nonoccurrence. Confusion results from considering one possible outcome and then its opposite. Closure is unavailable leading to confusion, fear, and worry. This was aptly illustrated in the nurses' responses to exposure.

The ambiguity inherent in the delayed effects of exposure and the perceived certainty of the fatal consequences of seroconversion combine in making exposure very stressful. In order to achieve some sense of control over their situation, nurses worked to decrease uncertainty by attempting to determine whether any harm had been done. This included vigilance in assessing the events surrounding the exposure. For D1 this meant increasing her attention to any threat-relevant cues that would indicate whether the patient was even a source of infection. For example, when she reported to emergency for a routine assessment of her hepatitis antibody status, the questions posed to her reinforced her uncertainty:

> Is he a known drug abuser, is he homosexual, is he this, is he that, and then all this stuff came. And I thought, what if he has it and he's not showing any signs, because people can do that. Now what am I going to do? Oh, I've got AIDS! You know, I just went nuts.

The ambivalence of whether to engage in avoidant or in vigilant behavior is exemplified in her search for information about the patient's status:

> When I did poke myself, it took me everything I could do to open that file to see if he was either homosexual or an IV drug abuser.

Moreover, her hypervigilant assessment style bordered on panic as she "misinterpreted" information that she did receive (Janis & Mann, 1977):

> I saw this circle with a slash through it and...homosexual...and IV drug abuser. And I panicked...My heart started to beat and I started to sweat, I got clammy...I [asked] one of the girls...what does this circle with a slash mean? "Oh, it means...no...like no history of IV drug abuse...or no homosexual activity."

Her selective attention to threat-relevant cues is further illustrated in her search to determine "who is dangerous". This attention to information on possibilities rather than probabilities suggests a preoccupation with threat that may fail to attend to more reassuring messages. For example, even when told that the patient was not an IV drug abuser or homosexual, she continued to focus on worst case scenarios, wondering, for example, if the patient would "really admit it". Consequently, she began to develop her own assessment of his status by considering potential high-risk characteristics: he was male, between the ages of 20-30, and had pneumonia. These characteristics suggested to her that he may be homosexual or bisexual and have AIDS. Moreover, finding out that he was a disc jockey increased the possibilities because she thought he "frequented the clubs". This vigilance in seeking out signs of the patient's status continued until she found out six months after the exposure took place that he was HIV negative.

Seeking out resources to "rule out harm" proved to be temporarily helpful in alleviating anxiety. About a week following her exposure, she sought help from the occupational health department "because it was really starting to affect me". She initially found the information reassuring:

> The lady was really good...she said, "Don't even worry, because it was in a heplock, there was no blood backflow in that heplock. An antibiotic had been running through all the time anyway...There was nothing coming back, so you don't have to worry. You are farthest from this as anyone else that has been in contact." So that helped for awhile.

Three months after the exposure, she called the AIDS Network who also reassured her that the chances of seroconversion were "next to nil, we can almost tell you that there's no problem". Additionally, some reassurance was derived from "unsolicited" information gleaned from casual conversation among coworkers about the low infectivity of HIV. She talks about the reassuring nature of this information:

> Little bits once in awhile would help me cope. That's what kept me going...Everytime I heard that you had to have lots or that the hepatitis virus is easier to get...All these little things about how hard it is to get AIDS...that the concentration of virus in a drop of blood is low...[and that] when your immune system is good that little poke with that little drop of blood...your body can get rid of that.

A further strategy that nurses used to rule out harm was to relive the actual exposure. D1 recalls how she would go over and over the incident in her mind convincing herself that there was no blood in the heplock. Nevertheless, even though others also reassured her, she would invariably return to a focus on worst case scenarios:

> What if there was a little bit of virus that snuck through, maybe not in the blood but in the fluid? That's what I was working on. I spent so much time preoccupied with what could've got into the fluid in the IV, the heparin solution. 'Cause I know looking at it, I remember seeing there was no blood.

Similarly, D11, who was splashed on her face with gastric fluid, recalls the actual experience and its potential for harm. She, too, attempted to rule out harm by questioning herself about whether she had any sores on her face or whether she got any fluid in her mouth or eyes (which would have posed a higher risk than skin contact). With the help of coworkers, she reassured herself that no harm had been done by "talking myself out of it, that it wasn't serious". An element of uncertainty, however, remains:

> It wasn't very much, it was like a couple little drops. But that was my initial [reaction]--and then at the same time [I'm] thinking, well...am I going to get AIDS now?

In contrast to D1 and D11, D7's concern about exposure surfaced at a much later date. She recalls that initially her cutaneous exposure to blood was "no big deal". While she admits to some initial worry, advice from a coworker assured her of minimal risk because she did not have any open areas on her skin. It was only later that she began to relive the experience which she attributes to a mixture of personal and work demands leading to burnout:

> I think a lot of it just had to do with my general state of mind at that time, being burned out, that I wasn't thinking logically at all...Your mind just works in funny ways. Mine got obsessed with this thought...I didn't have any open cuts or anything, but...you never know and my mind started going crazy.

She too vacillates between minimizing the risk and then focusing on all possibilities as she attempts to work out the possibility of harm:

> [I] keep trying to tell myself, well it could never happen to me. And then I didn't believe it anymore. Yes, of course, it could happen to me, I work with these patients all the time.

A somewhat different dimension of attention to threatening events was the eliciting of thoughts of "accumulated risk". In a sense, this involves not only reliving the actual exposure but reliving other potential exposures. This took the form of assessing the possibility of harm from past exposures incurred in both occupational and personal situations. D7, who became exposed to blood when reconnecting an IV, maximized risk by concentrating not only on the focal exposure but other previous possibilities:

> I guess it [exposure] got my mind thinking about all the other times I'd ever had blood--patients that you don't know--what they had...If someone coughs in your face and you can feel something hits your eye...I was so paranoid about everything, and I knew that I'd had that one blood spill. And then my mind started thinking well, what about the other times I'd been poked in nursing school? I mean you never knew who had what.

Moreover, she describes her preoccupation with risk as a "paranoia" that extends not only to past exposures but also to a desire to rule out harm from future exposures:

> Oh, my gosh, what am I doing here? What if I poke myself? My life will be over in that one split second.

D11, on the other hand, extends the accumulation of risk beyond her occupational exposure to her personal life stating this as one of her motives for getting tested:

> Just in case maybe I'd caught--got it somehow else. Whether from my own past or maybe somebody who I'd been with five years ago.

While nurses recounted the past events to determine the possibility of harm, for D1 a heightened vigilance also took the form of scanning for *new* signs of danger by attending to internal stimuli. She consciously monitored her body for signs and symptoms of HIV infection. This monitoring was confounded by symptoms of anxiety which mimicked possible early symptoms of HIV infection. Attention to the timing of these symptoms, however, helped her to eventually realize that they were not symptoms of HIV infection. This realization then provided some reassurance. She explains:

> I always sat and felt my glands...I would look for things. And I have no lumps, no swollen glands, no sore throat...I get diarrhea only when I worry about it and think about it, so you know that's anxiety...Then I started to monitor and realize that at certain times of the month, that's when I would get blues and that's when I would start to dwell on [AIDS].

She describes how her feelings and fears were accentuated by personal factors:

> And then another thing that came into play was the PMS [Premenstrual Syndrome]. I have a problem with that, not severe, but it was more severe because now I had this other problem, other stress. And so at that time of the month when you get irritable or you get aches and pains, and then I started thinking, oh...it's that! It's starting to work, or if I had even got the slightest cold or diarrhea, I'm thinking, oh no...I'm getting it. And I just really worked myself into a terrible--I used to get anxiety attacks. I would just break into a sweat, I would get all heated up and nervous and shaking.

In order to facilitate her vigilance for "true" signs and symptoms, D1 actively engages in measures which, paradoxically, "mask" their emergence:

> I started to decide that, it's all in my head. I started eating so I wouldn't lose weight. Like I didn't want to admit to myself that I'm losing weight, because I was dieting

> for a while, and I thought no, 'cause how will I know if it's the dieting or if it's the infection, the virus taking hold in my system? So I'm eating all the time so I won't lose weight. I'm sleeping with very--next to nothing clothing so I don't get night sweats. I have the window open. I am really phobic.

Such heightened vigilance may have resulted from the need to have definitive reassurance and ultimate certainty that she had not sustained harm. She states, "I just wouldn't let it go. 'Cause I didn't have proof." Supportive reassurance suffices for a while, but until there is definitive proof of no harm, the vigilance continues. This focus on possibilities versus probabilities is reflective of Janis' (1967) assertion that in states of high threat individuals critically evaluate solutions that offer a degree of safety so as to detect "loopholes." Moreover, when the level of threat is high, ambiguous communication and signs can lead to further vigilant behavior (Janis, 1962/1982).

A later strategy used by D1 to rule out harm was to change the meaning of the exposure from an emphasis on the scientific possibility of exposure to a focus on the "injustice" of getting AIDS. This form of reassurance is an attempt to convince herself that no harm has been done because "it's not my time to go". Such a strategy represents a shift of control from herself (and her previous actions) to others (God). This is a form of "vicarious control", whereby stress is reduced through sharing in "powerful others'" abilities to influence the situation (Rothbaum et al., 1982; Janis, 1951/1982). Perhaps, as well, it reflects a belief that one is protected against misfortune by being not only "careful" but also "good", and reasserts faith in a world that is just *and* controllable (Janoff-Bulman & Frieze, 1983; Lerner, 1980):

> I realized after a while that I'm just being ridiculous, and it's just not my fate to go this way, and I've got so much to give, and I just like everyone, and I'm so supportive for other people and giving, so why me? Like why would someone--why would God take me when I have so much yet to give to other people? I can help them. Like I'm the wrong person to take.

Her shift to vicarious control is further exemplied by her search for spiritual guidance and meaning:

> You turn back to God. You do all kinds of things...you look for support, you look for guidance and just things to keep your mood elevated, and keep you believing in other things, in the good of life and that there is reason to carry on.

In sum, strategies to rule out harm centered on efforts to reappraise the exposure as less threatening in terms of the possibility that it may not have caused harm. This is an attempt to achieve a sense of control over the distressing emotions created by the exposure. While previously nurses controlled their vulnerability by minimizing the risk of *becoming* exposed, now they work to manage perceptions regarding the *effects* of exposure. They focus on the circumstances of the exposure in terms of the likelihood of seroconversion. More specifically, attention is directed toward the type and amount of body fluid that is required to cause harm, to the low infectivity of HIV, and, for one nurse, to symptoms that may provide "evidence" of seroconversion. The efficacy of these coping strategies in reducing fear, however, is at best temporary.

b. Avoiding situations that arouse fear. In addition to the heightened attention *to* threat-relevant events, nurses also coped by diverting attention *away* from the source of distress (Folkman & Lazarus, 1988). While nurses try to reassure themselves that no harm has occurred from the exposure, in certain situations they encounter "cues" that reawaken their fears. Once aware of these situations, they may then maintain a sense of control over the distress such situations can create by consciously avoiding them. This was particularly apparent for D1, who selectively avoided both information and patients in an effort to control her fear.

For D1, information on AIDS produced fear because it "exaggerated internal cues" in terms of their relevance to AIDS. For example, as she researched material to present at an inservice that had been planned previous to her needlestick exposure, she started to experience the symptoms about which she was reading:

> The more I read, the more anxious I got, the more symptoms I got...night sweats, becoming lethargic, irritable, mood swings.

To control her feelings of vulnerability, she avoided the situation:

> I had put off that talk for months. My supervisor kept coming to me and saying, maybe we could [do it] next week, and she'd [propose] a day, and "sure, sure, sure", and [I'd agree]...And every time I got closer to [the day], I'd get worse...I'd phone in

> sick. Or I would make an excuse, or it would be so busy on the floor, or I forgot my information at home. You know, I went through just everything to get out of talking about it 'cause I couldn't talk about it yet...I'm talking about me. I felt like people would pick up...I just felt that I would lose it.

Moreover, this nurse would selectively ignore information about AIDS by avoiding situations where AIDS issues were discussed. When anyone started talking about AIDS, she would leave. Similarly, she ignored information that she received from the AIDS Network:

> They gave me all these pamphlets, which are still in my washroom cupboard, and I haven't looked at them, either. 'Cause I didn't want to see anything--I didn't want to know yet.

Not only did reading about AIDS and its symptoms become a stimulus to fear, but the mere presentation of such material evoked fear of the consequences of exposure:

> We got our *Canadian Nurse Journal,* and they sent us a nice book, a pocketbook with AIDS written in red...I opened the mail and I got this book and I saw AIDS and it's written in red, all I think of is blood and AIDS and I'm dead. Well, I threw that book in the garbage right [away], I didn't even open it...I don't want to know about it.

The interrelationship between the symbolic meaning of AIDS and the instrumental fear of physical contagion is also brought out by the fear that the symbolic elicits:

> There was a show on...about some lady possessed by the devil and this and that. And there was just a very eerie feeling of death and evil and--I couldn't watch the show. Because...that brought on my fears of dying and [being] contaminated and possessed.

Furthermore, anything "negative" such as watching police shows on television would bring on symptoms of anxiety. These statements are strong indicators of the social meaning of AIDS and its association with death, contamination, and punishment (Sontag, 1989; Meisenhelder & LaCharite, 1989). The suggestion of "being possessed" also indicates a perceived lack of control.

Patients themselves became a constant reminder of the nurses' own vulnerability. For D1, this vulnerability occurred with AIDS patients in general. She actively requested not to care for patients at this time:

> Like I just couldn't be around that lady. I just became unglued, I shook so bad, I got white...I just saw myself in her...I just thought that could be me...And I couldn't deal with that yet 'cause I didn't want to accept it.

Moreover, fear was generalized to anyone who reminded her of the patient (a black male) from whom she incurred her exposure because of her perception that his readmission would indicate a diagnosis of AIDS:

> So everytime I saw a black fellow, I would just get instantly anxious...because I kept thinking, what if he shows up here? What if he comes in with pneumonia? That means he does have it.

Her fears are "founded" as she describes her reaction when the patient is readmitted:

> And in comes this guy, and I hear his voice and I look and it was him. I just got instantly sick to my stomach. I got the diarrhea, I had to leave the floor...and I went to the washroom and I just stood there and shook. I thought, why is he here? Oh, no, it's pneumonia. He probably does have it. He keeps coming in with pneumonia, which is one of the symptoms. So then I come back out. I couldn't face him, never looked him in the eye. I couldn't stand his voice around me. I was just really coming unglued.

However, the temptation to avoid information was overcome by the need to know:

> I didn't want to know [why he was in] but I had to ask. [The nurse said] "recurrent pneumonia", and I thought oh, Lord! I'm done.

Another nurse who was exposed also indicated that her preoccupation with exposure was accompanied by a feeling of not wanting to work with PWAs. This was confounded by her increased eczema, probably due to anxiety, which in turn increased her actual risk in caring for patients.

Avoiding situations that stimulate fear allow nurses to distance themselves from the event and thereby control the emotional distress such events may elicit. However, as shown above, this was not always effective in decreasing fear. Perhaps this was due to the strong need to attend to any cues that may help to provide reassurance by "ruling out harm" but that also may be indicative of the threat. Moreover, the spreading of "negative affect" by association to previously neutral stimuli may make it difficult to ascertain apriori which stimuli may elicit fear. Even the most superficial association may lead to a transfer of negative affect from one object to another (Clore & Byrne, 1974; Janis, 1951/1982; Pryor et al., 1989).

c. The decision to test for HIV. With the major uncertainty of exposure related to whether or not seroconversion will occur, testing to determine HIV status would appear to be a "reasonable" strategy to reduce that uncertainty. The decision to test, however, was not easily made and indeed was seen by some as a major dilemma that was fraught with considerable anxiety. Nurses weighed the benefits of seeking out knowledge and of avoiding knowledge about the consequences of their exposure. Knowing their HIV status and not knowing their status each carried a price. A negative test would be powerfully reassuring, but a positive test could be disastrous. Indeed, for some, testing was perceived to introduce new uncertainties rather than decreasing uncertainty.

Motives for *not* testing pertain to the need to avoid the adverse emotional impact that a positive test would impart. For D1, the uncertainty of not knowing was initially preferable to the consequences she perceived with a positive diagnosis. The perceived implications of a positive test included, in addition to the certainty of death, a fear of rejection. For her, HIV infection and AIDS signified both primary victimization (direct physical consequences of the disease) and secondary victimization (negative social reactions from others) (Taylor et al., 1983). Moreover, she perceives that she does not possess the resources to manage the threat she envisions. The high stakes and the decreased sense of control to deal with the perceived threat influence her decision to avoid testing:

> I was afraid to go get tested 'cause I thought, what if it showed positive? Then I can't cope. I know I can't cope. What'll I do with myself? I have two children, I'm planning on getting married to this fellow. No one will want me.

While this strategy may have helped her to avoid the emotional distress such a diagnosis may create, it did not relieve her present emotional quandary. Instead, the ambiguity of her status left her psychologically vulnerable to persistent fears (Siegel et al., 1989). Three months after her exposure, she finally "had the nerve to phone the AIDS Network to get tested". This decision may have been facilitated by taking a friend along for support. Although she felt "good" about this procedure, after two days she began doubting the wisdom of her decision by questioning the certainty with which she could interpret the results. D1 was concerned more about procedural uncertainties than about any ambiguity or unreliability of test results.

Again, she focuses on possibilities rather than probabilities:

> What if they mixed up the numbers? What if they mixed up--sent my specimen and it came in someone else's name?

Moreover, when informed that testing at three months may not yet reveal antibodies, her anxiety increased because she questioned her ability to cope for the next three months (when she would go for repeat testing). Her assessment of her coping skills to face the possibility of a positive result kept her from obtaining the results of her three-month test and from going for further testing at six months:

> And I thought, I should go back and find out those results and get tested again 'cause then I'll know for sure. I still just couldn't get up the courage to go, 'cause I still in the back of my mind thought--*what if*.

Living with the uncertainty of not knowing, however, also generated considerable discomfort and indeed left her vulnerable to suspicions that symptoms in herself and others may be HIV related. At one point her boyfriend developed "lesions", which appeared to heighten her own sense of vulnerability. This increased attention to any cues that could possibly be related to HIV may have been a motivating factor to seek out information about her HIV status:

> And I finally decided, I've got to go and find out. 'Cause I mean we might as well know...if it is, I'm going to know anyway, so why not know now and then learn how to cope and go for counselling...I think what really helps you to go test is when you feel that you have succumbed to this, that you might have it. You want to deny it, you want to put it off, and you want to not believe that it's actually--so you don't go, 'cause you can't--you're not ready to accept that prognosis.

Nevertheless, it appears that a high level of fear inhibited carrying out the decision to go for the six-month testing because when she was confronted with the patient from whom she incurred her exposure she "lost touch with reality". Seeing the patient seemed to increase her feelings of vulnerability and fear and was immobilizing to the point that she avoided seeking information about her status. It was at this time that she learned (through the patient's history and tests) that the patient was HIV negative. This information provided her with the certainty she needed to feel that she too was "negative"; consequently, she never went back to obtain the results of her tests. Her main reason for testing was to relieve the psychological distress associated with not knowing her HIV status. Her main reason for not obtaining the results of the testing or for not going for further testing seemed to be to avoid the possibility of receiving a positive diagnosis, which for her was perceived to be more detrimental than living with the uncomfortableness of not knowing for sure. Perhaps not knowing permitted her to have a modicum of hope that she was uninfected, and this in itself was psychologically protective, albeit precarious and temporary. Apparently, the costs involved in facing a positive HIV result were too great.

D7, who incurred a cutaneous blood exposure, also experienced considerable anxiety about testing. She could not recall how long after her exposure she got tested but suggested that it was probably "months". A concern about the accumulation of risk from unknown exposures and a general "paranoia", combined with encouragement from her family ("who were so sure it would be negative") and her counsellor, were her self-reported motives for testing. For her, living with the uncertainty of not knowing compelled her to get tested. She explains:

> I was so paranoid about everything, and I knew that I'd had that one blood spill. And then my mind started thinking, well, what about the other times I'd been poked in nursing school? I mean, you never knew who had what. So I guess I thought it best just to ease my mind. Although I was so sure it would be positive. I had to get tested, otherwise I couldn't go on. I knew I couldn't go back to work on 888. So--you have to have something to deal with. 'Cause you can't really deal with it unless you know either way.

However, even after she had made the decision and had blood drawn, ambivalence and uncertainty prevailed. She describes the emotional impact of waiting for the test results as the "worst four days of my life":

> And it was so scary, and I told [my counsellor] that I better not be alone when I find out the results. So I had my blood drawn. And even that--even that moment when the blood was being drawn--I mean, nothing happens then but that was a --I was feeling like...oh my gosh, this is it...Could this be telling me this is the end of my life? So then the next four days, I didn't sleep, I was really hyper, and couldn't stop thinking about it. And I kept thinking, did I make the wrong decision? Maybe I shouldn't've had it done: maybe it would be best not to know and then I could go on and live my life. And I made a lot of decisions at that time: well, I'm never going to get married--if I live long enough, I'll adopt a baby and--So many things. I was trying to figure it all out in case it was positive. I didn't want to be left with any questions at the time.

Resigning herself to the fact that the test result would be "positive" and planning her life as if it were positive may be indicative of attempts to gain "predictive control" (Rothbaum et al., 1982). In such situations, individuals predict events so as to avoid disappointment. In this way, she makes the best of a situation that is perceived to be impossible to alter. Further evidence of this secondary control is demonstrated in her "preparing for the worst" by resigning herself to her own death:

> I was making myself think about dying and that I had to live my life like I was dying...I decided I'd better plan what my life would be like if I was dying.

The relief of a negative result is deeply emotional:

> So, finally when the moment came...even now, it's such a powerful feeling...I just went into this incredible elation after that...I felt like I could have a whole fresh start. It was sort of the beginning of my healing...And it felt really good, so I could go to work without feeling that...why am I doing this, endangering my life.

These last statements suggest that she has regained a sense of control. The threat has been decreased because the likelihood of seroconversion has been lessened and her feeling of vulnerability decreased. Although she experiences a feeling of safety from the results of the testing, she acknowledges an element of uncertainty due to the ambiguous incubation period. In fact, because of the uncertainty that prevails despite testing, she questions whether she would get tested should she be exposed again.

Another nurse who had been exposed to gastric fluid from an AIDS patient did not get tested until about eight months after her exposure (although she cannot remember the exact elapsed time). Like D1 and D7, D11's motive for testing was to alleviate the emotional distress associated with "not knowing for sure." Her exposure appeared to result in a lower level of stress than that experienced by D1 and D7. When combined with a concern about previous personal and occupational exposures, however, it led to a decision to "resolve" uncertainty:

> I don't know if it was a hard decision, I just thought--'cause I guess I was still worried about this stuff on my face, if there was a chance...It was just some gastric fluid. The chances are very low of it having anything in it...but there's always that outside chance with anything...I just kind of thought--to get it done, just in case maybe I'd got it somehow else. Whether from my own past or maybe somebody who I'd been with five years ago--I mean it's sort of like, well, we'll just get tested and then we'll find out.

Although she vacillated between facing the possibility of a positive result or living with the uncertainty of her status, her belief that in all likelihood the results would be negative and that she could cope even if they were positive gave her a sense of control in facing the uncertain outcome of testing. Moreover, knowing the results would allow her to maintain a sense of control over her life by "living out my dreams" before it was too late. She explains:

> Just the belief that, well, it'll probably come back negative. And if it comes back positive, well I'll be able to handle it...I'm thinking if it is positive, then what shall I do? And I thought, well, if it is, then...I'd borrow some money from the bank...and then I'd go to Australia for six months. I'd make sure I got my big trip out of it before,'cause I know what happens...like you just don't wait around to get better, you go and you do it now. I guess that's what my thoughts were. ***And at the same time*** thinking that why am I doing this 'cause I guess I thought that it's going to be negative, so why am I doing it? ***but at the same time*** the outside chance that, well, what if it is positive? [emphasis mine]

In contrast to D7, this nurse did not receive her results until two weeks after testing. However, she did not experience the distress felt by D7 and appeared to reassure herself about the minimal risk given the circumstances surrounding the exposure. Like D7, she experienced relief, although not as intensely, at the negative results.

D4, who received a parenteral exposure from an HIV-infected patient three years ago, does not seem to have considered testing as an option. She states, "You recorded it, but nothing was done. Nobody ever once said to me that I should be tested." She also does not worry about it and would not go for testing even if exposed again.

In sum, the quandary of testing can be an intensely emotional experience. Individuals must weigh the pros and cons, knowing that a positive result has devastating consequences for self and others. The decision-making process was influenced by a variety of factors. In general terms, decisions were based on the individual's perception of the meaning of the results of the test in terms of the perceived consequences as well as the perceived control to cope with such consequences. The main barriers to testing were the perceived costs of coping with a positive outcome that may include rejection, death, and a shattering of life-long goals. Social support was facilitative in taking action. Recall of previous exposures also appeared to increase perceived susceptibility, thereby motivating action. The major perceived benefit to testing was increased psychological comfort from "knowing", which in turn would allow one to begin adjusting to whatever the results might be.

The dilemma of testing can be interpreted from a variety of perspectives. In general terms, it indicates that even though nurses may be able to exert some control over the uncertainty of whether they have sustained harm, this "potential" for control may be both threat-inducing and threat-reducing (Folkman, 1984). More specifically, nurses' experiences with testing exemplify both positive and negative effects of vigilant behavior on emotion management. Folkman and Lazarus (1988) suggest that vigilance, in the form of information search, may increase the intensity of emotions when the information leads to knowledge that nothing can be done to alter the situation or that things are worse than was previously thought. Anticipating negative results prevented some nurses from engaging in information searching to decrease uncertainty. On the other hand, vigilance can reduce distress by increasing understanding and providing a sense of control even if nothing can be done to alter the outcome. Some nurses perceived that "just knowing" would increase a sense of control to better plan the remainder of their life. Perhaps a decision not to get tested is a form of maintaining "predictive" control in an effort to avoid disappointment. Rothbaum et al. (1982) suggest that disappointment is aversive because it adds the insult of secondary uncontrollability (not being prepared for the outcome) to the injury of primary uncontrollability (not being able to alter the outcome). The dilemma of testing may also be interpreted from the perspective of victimization theory (Taylor et al., 1983). Knowledge of the aversive social and personal consequences of HIV may motivate nurses to minimize their victim status by concealing it from themselves and others, thereby permitting them to maintain a self-perception of nonvictim. These various interpretations suggest that achieving control over one aspect of an uncertain situation may lead to a loss of control over other aspects.

Other researchers also have observed that those who feel at risk for HIV may exercise a sense of control by not getting tested. For such individuals, living with the uncertainty of their status is preferrable to facing the consequences of a positive diagnosis (Siegel et al., 1989; Weitz, 1989). In such situations, ambiguity may actually reduce threat by allowing an alternative (and perhaps more reassuring) interpretation of the meaning of the situation (Lazarus & Folkman, 1984). On the other hand, vigilance in seeking out information to reduce ambiguity may be perceived as increasing the intensity of negative emotion.

d. "Pushing it out of mind". In contrast to those nurses who used strategies that attended to the event of exposure itself, two nurses used primarily avoidant strategies to cope with the emotions elicited by exposure. D4's major strategy to deal with her exposure was to consciously divert attention away from it whenever she experienced distress. She explains how her perception of control influenced her choice of strategy:

> Every time I'd think of it [I felt sick]. But then I just pushed it away because...what can you do with it? It's not something you can--you can't rationalize it. There's nothing you can do with it to make it better, you just have to push it out of your mind, like you have to consciously think of something else or do something else. Because I couldn't deal with it, like how do you? I have no idea how to deal with it. I just got rid of it every time I thought of it.

This strategy appears to have been successful in alleviating distress, as she has even "lost the detail" of how the event happened. Although this fading of the details may be due to the three years that have elapsed since exposure, she admitted that "maybe I don't want to remember". Interestingly, while she has forgotten the details of exposure, the emotion accompanying the exposure is vividly remembered and expressed. Nevertheless, she does not feel a need to decrease the uncertainty of her HIV status, as she now reassures herself that no harm was done based on her present state of health and the increased knowledge she has obtained since the exposure:

> Like now it doesn't bother me because they've done studies where there's been needlepokes and there's been no incidence of the infection...I've never been healthier since and I am not the least bit worried that I have it.

She minimizes the effects of exposure by appealing to the knowledge about transmission:

> There is no sense being tested for six months. By the time you think about it enough you realize the chances aren't good of you getting it. It's just not strong enough a virus.

This last statement suggests that perhaps at some point she did direct attention to the risk by appealing to rational data. Contrary to her previous statements, she too may have tried to "rationalize" the exposure in her attempts to rule out harm.

In spite of the abstract knowledge about the low infectivity of HIV and the "proof" that she is healthy in spite of exposure, she admitted that if she were exposed again "objective risk assessment" would not be enough to dispel fear. An actual exposure would shatter feelings of control, heighten feelings of vulnerability, and lead to coping efforts to reassure herself that no harm had occurred:

> Now your doubts are going to come back again and you're going to have to talk yourself back into--now look at the studies, look at this, look at that. Your chances are slim. But I think I would have to go through it all again...And then there'd still be times it would flit into your mind and you'd think about it and you'd have to push it out again.

The active nature of this "reassurance work" in controlling emotional distress is also reflected by D1 in such words as "fighting it away to clear your mind". Such intrusive and repetitive thoughts about the victimizing event have been viewed by others as a normal part of adjusting to stressful events (Horowitz, 1983). In contrast, a more passive form of "distancing" may have been the distraction provided by the normal daily nursing activities, which for one nurse was particularly helpful in forgetting for a time.

For D13 (who received a cutaneous exposure to diarrhea from a ripped glove), an assessment of minimal risk and little control over the outcome of the exposure "allowed" her to distance herself by not thinking about the exposure. She describes her handling of the situation:

> I thought, oh, gross...That's probably what I thought. And I probably didn't really give it too much more thought because it happened, and I mean, there's nothing, really that I can do about it...Like I didn't fill out a hospital incident report or anything, I just washed my hands. Probably--like if I had a cut, I would've. But...I looked at my finger and I thought, there's nothing--it's all intact skin. So I didn't want to get too hysterical about it...I might have been brooding about it for a couple days.

This strategy seemed to be effective as she goes on to say that while this incident occurred a few months ago, she had not thought about it until the time of the interview.

4. Selective Disclosure to Coworkers

Nurses initially sought the advice of their coworkers in helping them to determine what to do about their exposure. For example, D1 told one of her colleagues about her exposure immediately after it occurred and was advised to "bleed" the injury. Both D7 and D11 sought reassurance from their colleagues about the potential risk. After this initial contact, however, there was a conscious decision not to share their feelings and concerns about the exposure with their coworkers. This included not divulging any information about being tested. To facilitate successful "passing" (Goffman, 1963), testing occurred outside the agency where they worked. Several different reasons were given for not sharing this experience, but they all appeared to have one goal: to reduce the uncertainty of how others may react. Keeping silent was a way to control others' perceptions and reactions and, ultimately, one's own.

a. Avoiding rejection. The fear of being rejected should she become HIV-infected appeared to be one of the major reasons for D1's nondisclosure to others. Even though her coworkers approached her about her unusually "quiet" behavior following her exposure, she did not reveal her concern to them but chose instead to maintain a "normal" front. She explains:

> I didn't want anyone to know. I didn't want anyone to know that there was even the remote possibility that I would have it...because people get rejected. I know they get rejected, I know they can feel the rejection.

Moreover, her silence also may have been influenced by her feelings of aversion about AIDS in terms of its' symbolic connotations to contamination:

> I didn't tell a soul. Never talked about it since 'cause I didn't want anyone to know that I poked myself. Just because I felt infected and dirty.

The above comments support Davis'(1961) position that "victimization" (i.e., being exposed to HIV) may be aversive because it forces people to label themselves in negative ways with others who have the same "stigma". As a result, they may react to themselves in part as they do to other victims. This reaction of the "observer-self" to the "objective self" is upsetting and may be particularly heightened when exposed to other victims. In this instance, the status of being exposed to HIV quickly becomes identified and synonymous with the status of having AIDS. D1 goes on to describe how her concern about rejection was influenced by her own reaction (indeed "rejection") to PWAs:

> And knowing how I felt and if I had [AIDS]...I put myself in their shoes, is what I did. If I have it, I know how I feel about those people, so what's to say that other people aren't going to feel that way about me. And they will. So, I just know as to how I felt. So I know that there probably is a lot of rejection. Even if it's not said, I know that people can pick up feeling.

Again, the victimization literature points out that when victims are aware of victim derogation, either by personal contact with such derogation or through their own prior experience in reacting to other victims, the anticipation of such derogation may act as an impetus to minimize their own status as victim by "keeping silent" (Taylor et al., 1983).

In contrast to some nurses who felt that if they should develop AIDS then they would like to be cared for by their own coworkers, D1 instead would "avoid" being with those she knows. While perhaps not anticipating outright rejection, at the very least, she suspects that workers would be of little support because they cannot understand. Although her perceptions of how others might treat her may be based on her own reactions to PWAs, she also may have been influenced by her observations of coworkers' reactions to a colleague who had sustained a needlestick injury. She perceived her coworkers' responses to the "status" of being exposed as insensitive, so "you don't want to open up yourself 'cause you don't want to get hurt". Such insensitivity is interpreted as evidence that others with whom one must interact find the situation "aversive". This compels the "victim" to minimize or conceal the victimization (Taylor et al., 1983). In this situation, D1 perceived that her coworkers took her "exposed" colleague's concerns too lightly. Anticipating similar reactions from others, she chose to minimize her "status as a victim" by concealing it from others.

Although few research studies have focused on HCWs' perceptions of their coworkers' responses to exposure, a recent survey of Nova Scotia nurses by Kerr and Horrocks (1990) revealed that a large majority of respondents (88%) believed that they would be ostracized at work if they became HIV infected. One-quarter of nurses agreed that having a coworker with

AIDS would bother them, and another 27% were undecided. Indeed, there is some evidence that HCWs who are HIV infected have faced job discrimination (Clever & Omenn, 1988).

b. Avoiding well-intentioned concern. Even when coworkers are not rejecting or insensitive, their well-intentioned concern may be more than the nurse can cope with. D10 discusses a colleague's comments regarding the need to keep the colleague's exposure quiet:

> She [the colleague] said, "I don't want to make a big deal about this...only one other person on the unit knows," and she said, "I would like to keep it that way...I'm still working through it, but mostly I'm okay with it".

D10 goes on to explain the need for silence:

> I think she feels that she doesn't want that issue to overshadow everything else she does. She wants to be able to come to work, do her work well, and go home, and not have people reminding her all the time, well how are you feeling, and are you okay...She's a very emotional person, and just I don't think could cope with people asking and doting about her...because people are concerned, and they do care. And they show that, and sometimes it's not appropriate. Or the person can't handle it.

These statements indicate that perhaps others' responses, however well-intentioned, become a stimulus for eliciting unpleasant feelings rather than a means of emotional support. Another nurse who had been exposed supported this by saying that when she was feeling "well", she would not have appreciated others bringing up the subject because it would have aroused fear. Yet another nurse stated that she did not bring up the subject of exposure to a colleague who had been exposed, even though her concern for the person was still there, because "to bring it up again I think is like going through it all over again". Indeed, D1 provided examples from her unit where colleagues did initiate conversation about a nurse's exposure. D1 perceived this as being "insensitive". In short, it appears that nurses may "keep silent" about others' exposures (if they are aware of them) in their efforts to protect the nurse who is exposed. The nurse who has been exposed also works to protect herself from the reactions of others by not sharing this experience with many others on the unit.

This finding ties in with the victimization literature which suggests that even the "best" social responses to the victim may be aversive and decrease self-esteem because the "need to accept aid from others and the accompanying emotional reactions such as pity may indicate the condescension of the other and underscore the loss of power or status on the part of the victim" (Taylor et al., 1983, p. 25). Moreover, attempts by others to interact normally with "victims" are often inhibited, uncomfortable, and overcontrolled (Goffman, 1963). As a result, victims will often disavow their victim status so as to encourage others to behave toward them as "normals" (Davis, 1961; Goffman, 1963; Taylor et al., 1983).

c. Maintaining professional self-esteem. Another reason for not talking about the exposure for D1 was her perception that the exposure could be attributed to carelessness. In spite of its "accidental" nature, she felt that others may think she was careless because she did try to cap a needle. Moreover, this feeling may have been influenced by her perceptions that some of her colleagues attributed a coworker's injury to "clumsiness", thereby conveying responsibility for exposure. She describes her silence:

> So I had to deal with this inside. I didn't want to tell anyone on the floor anymore. Like some girls on the night shift knew that I'd poked myself. They weren't concerned. But I dropped it and never brought it up again, so I was dealing inside with this. I couldn't tell anyone. Not even my family. I didn't want anyone to know, 'cause I was always so careful.

This silence extended to the time of the interview:

> People will not believe the story I have to tell. But I won't tell the girls on the floor to this day that I ever did that. That I ever poked myself--no one will ever know that but you. [When probed further] I just don't want them to know. I think it's part of being careless...maybe that's a part of it. I just don't want them to know that I had that flaw...yeah, I think it reflects on your nursing. That you were careless. And that you know you're not supposed to recap anyway. That's just another point going against me...I learned my lesson. The hard way.

In sum, a perceived threat to her professional self-esteem motivated D1 to conceal her status of having been exposed. This suggests that the meaning of exposure may include not only the potential consequence of becoming HIV positive and all that that entails but also may reflect on one's professional self-image.

d. Controlling own fear. Even after the exposure issue itself had been resolved (i.e., nurses come to feel confident they are HIV negative), nurses still remain silent. At this point, keeping silent may be a way to avoid a stimulus to fear, thereby preserving one's self-conception of "being safe". Talking about the exposure may resurrect the painful emotions associated with the experience. Indeed, the two nurses who experienced the most distress with exposures, at the time of their interviews "reexperienced" strong feelings:

> D1: I get a little nervous--I shake when I talk about it sometimes--this is the first time I've ever talked about it...And probably never will [talk about it] again after this, 'cause I want to forget about it now.

> D7: It is a little bit [hard to talk about it] because it brings back some of the feelings of...terror and death and...it's hard to forget. And I don't ever want to feel that intensely about that again.

Therefore, not talking about the exposure is a way to control not only others' perceptions and reactions but also one's own emotional state. Although D7 stated that she is unsure about why she does not want others to know about her exposure and testing, she admits that maybe she does not talk to others about testing in general because of the fear such discussion may elicit:

> But people at work don't know. It's something that I didn't want people to know that--and I still don't want anyone to know I've been tested. I'm not sure why...Like maybe I don't like to bring it up because it brings up a lot of bad feelings for me. So if I don't talk about it, I don't have to think about it.

Although nurses "keep silent" about their exposures, they also commented that this is not a very helpful strategy in reducing stress. D7 maintains that "just keeping it inside is the worst part". She talks about an exposure she witnessed with a student nurse:

> She never came out and said 'I'm upset', she just kept on doing her work. I guess as a student nurse...they feel they have to work so hard...I asked her if she was upset. And she said, 'oh yes'...I think it was good for her to know it was okay to be scared. And I told her I've felt that way...I think we've all been poked or whatever. I know I have several times. And she seemed to feel better after that. Because a lot of it is...just keeping it inside is the worst part.

5. Disclosure to Family

Overall, nurses who had been exposed derived little support from their partners or immediate family. In one instance, the nurse did not tell her spouse; in others, the extent of support derived from the family members who knew was minimal.

D4's decision not to tell her husband seemed to result from her assessment that the costs involved in so doing would outweigh the benefits, "It would upset him and there's nothing he can do about it". Telling him about the exposure may raise new demands to deal not only with his emotional distress but also with the distress this may create for her. She maintains that her husband does not value her work with PWAs and that he has offered no support in this area. Although she acknowledged that "perhaps he has a right to know", she chose not to tell him and affirmed that should she be exposed again, her decision would be the same.

D7 shared her experience with her family and they supported her in getting tested. However, as discussed in a previous chapter, she stated that her father did not support her decision to go back to work with PWAs following her exposure. She now perceives little support from him.

D1 did share her experience with her boyfriend. His response, while interpreted as an attempt at reassurance, was not perceived as very helpful because of his lack of "credibility". It was her boyfriend who initiated the discussion of the exposure when he noticed the bandage on her finger. Initially, she did convey her feelings of fear to him:

> Well, I cried. I broke down...And I said, what if this and what if that. He said, "don't worry"; he says "the chances are nil". What does he know? He works in the oilfield [laughs]. I thought that's easy for you to say, but now I am subjected to this. And I have to cope with it, and I can't.

At the same time, however, she also attempted to allay his fears by minimizing the risk:

> Telling my boyfriend that I did poke myself but...I even told him, there's no chance because it wasn't in contact with [the patient's] blood, it was just in the heparin lock, and all this antibiotic had gone through. I felt like I was trying to really paint a picture for him to believe me.

In spite of verbal reassurances that the risk was minimal, she goes on to say that "when it came to the intimacy part of our life, I felt I had to withdraw." Her boyfriend, however, did not appear to perceive a risk but instead appeared to accept her initial reassurance. She recalls his response, "There's nothing wrong with you, and if you [die], I'm going with you" and reflects on their differing perceptions of risk, "Maybe guys have a different attitude; they just think...it's not going to happen to me, and I'm not worried about it." After this initial discussion, however, she tended not to discuss the exposure with him, although she admits that she "mentioned it to him periodically." Her stated reasons for this silence were two-fold: she did not feel he would understand her feelings (and hence would not be a source of support), and by keeping silent she hoped to convey the impression that risk was minimal. This would avoid the extra demands that his emotional response may create:

> I no longer discussed it with my boyfriend...'Cause I wanted him to know that I'm okay...I didn't want him to know that I was worried 'cause then it would make him worry, or he would think I had done more...that I had actually contaminated myself with blood--the more I stressed it to him, I'm sure he would've felt that I had done more than what I'm telling him.

She admits that her boyfriend's willingness to "go down with her" was an important source of support. Moreover, the presence and support of another close friend may have helped her to be "honest" with her boyfriend, even though she risked rejection by telling him about the exposure. She explains:

> So I told him...And if he was going to say, well, hey, I'm not taking any chances, I'm out of here...goodbye. 'Cause I knew if he does, I'd've had a support person who--this other fellow--who is like my best friend. Like he is more understanding than my boyfriend; you can talk to this guy about anything.

Another nurse who received a cutaneous exposure did talk with her family and boyfriend about it. However, she reported that they "did not make an issue of it" because she reassured them of minimal risk.

In sum, nurses suggest that they derived little emotional support from their families and significant others when they incurred exposures. Rather, it is the nurses who try to support their families and significant others by minimizing the risk in order to prevent them from becoming unduly concerned.

6. Assigning Blame

Attribution theory (Heider, 1958; Kelley, 1967) would suggest that following a threatening event, people "make attribution" so as to understand, predict, and control their environment (Taylor, 1983; Wong & Weiner, 1981). Such attributions may be viewed as efforts to gain control of the present and future through an understanding of the past (Musil & Abraham, 1986). Nurses attempted to understand their exposures by making causal attributions. This involved assigning responsibility to themselves, the patient, or others. Of considerable interest are the number of nurses who explicitly stated that they "blamed" themselves for the exposure because they were "careless" even though "others" (nurses) had also been involved in the incident. Those nurses who experienced the greatest emotional distress blamed the patient as well as themselves or others. For example, D7 blamed both herself and the patient:

> I found myself probably a couple times being angry at the patient who'd ripped his IV apart and I went in there...it wasn't his fault. But I guess it's normal to blame something. I was very angry after [at myself]. I thought, I could've put gloves on, why didn't I? It wasn't that important to his life for those five to ten seconds it would've taken me.

D1 also found herself being angry at both the patient and the nurse whom she perceived "caused" her exposure:

> Coming back to work that next night...I had resentment for the patient, and for the nurse who changed the needle, I just couldn't talk to her at all. Just because I thought it was her fault.

This nurse, however, also acknowledges that her exposure reflects on her nursing care, that she was "careless". Therefore, she may also implicitly be blaming herself. Another nurse who sustained an exposure from a heplock also found herself being angry at another nurse's "sloppiness" which she perceived contributed to her exposure. Nonetheless, she herself assumed some responsibility for the accident by suggesting that she should have been "more careful". Still another nurse who was exposed to urine attributed her exposure to "being a victim of circumstance" but nevertheless felt angry at herself.

Although there are no studies exploring in depth how nurses manage exposures, anecdotal evidence suggests that workers who were exposed at the Toronto General Hospital sometimes expressed anger toward both themselves and the HIV-infected patient (Strickler, 1988).

The assigning of blame has been described a number of ways in the social psychological literature. One way of looking at blame in the context of coping centers on the concept of "defensive attribution" (Shaver, 1970). In this formulation, avoiding blame for negative events is seen as an attempt to protect self-esteem. Moreover, attribution theory suggests that people will usually deny responsibility for negative events, thereby fending off feelings of guilt and incompetence, and the criticism of others (Miller & Ross, 1975; Heider, 1958; Miller & Porter, 1983). A more recent conception of attribution of blame, however, suggests that assigning of responsibility may relate to feelings of control. By assigning responsibility for events to one's own behavior, it is possible to maintain a sense of control over the event. Wortman (1976) linked the need for perceived control to the blaming process by speculating that victims may be motivated to accept blame because this enables them to maintain the belief that they are in control of their future. In order for people to be confident that they can control their future, they must accept that they are responsible for their past. Moreover, such a formulation preserves a belief that the world is just and orderly, that events do not happen by chance (Lerner, 1980). Studies of victimization (Baum et al., 1983; Janoff-Bulman, 1979; Wortman, 1976; Miller & Porter, 1983) suggest that behavioral self-blame may be functional if it involves attribution to one's behavior (rather than one's character) that can be seen as modifiable. By altering their behavior (that is, "being more careful") nurses can prevent future exposures. In this way they can maintain a sense of personal control. Baum et al. (1983) suggest that if maintaining a perception of control is an important part of one's coping repertoire, then self-blame is more likely to increase the effectiveness of coping than is attribution to others. This would seem to apply to nurses who emphasize individual (personal) responsibility in preventing exposures.

Miller and Porter (1983) have pointed out the multifaceted aspects of attribution of responsibility that may help to explain nurses' attribution to more than one source. These authors suggest that the "meaning" of blame can be differentiated into "cause" and "occasion". More specifically, do nurses ask why the event occurred (cause) or do they ask why they were the recipient of the exposure (occasion). Accordingly, they may blame themselves for either causing the event or being a victim of it. In the former, nurses ask what caused the exposure (e.g., other nurses' mistakes), whereas in the latter they ask whether they could have done more to avoid being exposed. In this study, it appears that nurses' self-blame relates to the latter question (i.e., they could have been more careful), while assigning blame to others relates to the former.

Of particular interest is the attribution of responsibility assigned to the patient. Nurses' attributions of blame to the patient may relate to the immediate cause (e.g., patient pulled his IV apart), but even more significant in terms of the consequences to the patient and the nurse is the attribution of "ultimate" cause. One nurse, for example, assigns to the patient, and by extension all homosexuals and IV drug users, the "cause" of her exposure. Her reasoning appears to convey the following logic: "If the patient were not gay or an IV drug user, then he would not have engaged in irresponsible behavior, then he would not have acquired HIV infection and AIDS, then he would not be in hospital, and then I would not be looking after him. Therefore, I would not have been exposed". Such an attribution of blame, extending to ultimate causes, may be viewed as an instance of derogating the patient.

7. Derogating the Patient: A Disconfirmation of "Meaning"

One of the consequences of becoming exposed was a change in the way nurses regarded their work. The two nurses who expressed the greatest emotional distress from exposure also began to question the value of their work. Exposures seemed to break down the meaningfulness of work. This related, in part, to their attribution of responsibility toward the patient, particularly in terms of exposing them to risk.

One nurse became particularly evaluative toward patients following her exposure. Following a needlestick injury from a patient whose HIV status and sexual orientation were unknown, D1 nevertheless attributes homosexuals with responsibility for subjecting her to past and future exposures to HIV. While other nurses attempt to separate the patients' homosexual behavior from their "person" or view it as "none of my concern", she perceives that the patient's lifestyle directly affects her:

> I don't care really what you do, what your lifestyle is, as long as it didn't affect me. Since I had that needlepoke and all that fear--now if I have to work with them, homosexual or bisexual people do bother me. They're promiscuous activity, inflicts on me because now when they come in with HIV positive, I have to look after them.

She suggests that her feelings derive from her attribution of responsibility:

> I really don't want to look after them; I think what they do is their own fault, if they're going to carry on promiscuous or homosexual activities or needlesharing, when they know, then, hey, why bring it to me? I don't want it...But it's just cause of my own insecurity.

This attribution of responsibility influences her interaction with patients. While other nurses make efforts to get to know their patients, she consciously avoids getting to know them; while others attempt to reduce "differentness" and thereby psychological distance, she creates distance:

> Since I had poked myself--I didn't want to know what they were feeling. Look what you've done to me was my attitude. I don't want you here and I don't want to look after you...I spend more time socializing with those [patients] that I have a good suspicion that aren't HIV. I don't want to know about their lifestyle...I don't want to know anything about it. I've withdrawn from it.

A further example of the entrenchment of the "outsider" status is the extension of *who* will be labelled as such. While other nurses extend their positive feelings from the patient to other homosexuals, she now regards with caution even those whom she previously knew and enjoyed (as "insiders"), including a coworker:

> I just recently found out that one of the float nurses on our floor is gay. And I never knew that, and I liked him so much, I thought he was nice; and I always thought he had a little feminine tendencies, just the way he walked, talked--he always seemed very nice. And now someone told me that he was [gay]...They had seen him downtown and, yes, he definitely had a male partner...I'll be nice to him but I won't be close to him; I won't sit and laugh with him...I used to laugh, touch...But now I'll be more withdrawn. I'll hide it so he won't see it, because I don't like anyone to be hurt. But I know it'll affect me.

She extends her feelings of responsibility for AIDS to all homosexuals because homosexuals have come to symbolize AIDS:

> It's almost like I've lost respect for them, and I don't think that they should...have to inflict themselves on me...If they are a homosexual I'll always feel that--see what you've done.

A reappraisal of the patient also influences her professional self-esteem. In contrast to those nurses who perceive that they have something valuable to contribute to the patient's welfare, D1 suggests that she has little to contribute and, indeed, may do the patient more harm than good:

> They need someone that really wants to care for them. They need someone that has the feelings and the emotions and stuff. They don't need me in that room. I'm doing them more harm than good. They're not feeling good about themselves. They have an illness, and I'm in there treating they like they do have that illness. I'm sure they can sense the vibes I give off. I don't think it's right to have me in there. I'd go in and do my best not to, but...that's not what they need...I'm going to avoid any conversation I can so that's not nursing.

She goes on to suggest that she is adding to their problem because she is not being as supportive as she could be. While other nurses derive a sense of professional self-esteem from their interactions with patients, for D1 patients decrease her self-esteem by becoming a source of professional conflict.

Another nurse who was exposed to blood from an AIDS patient also began to question the value of her work. She describes a feeling of "paranoia" of getting the disease. It was during this time that she began to resent patients and question the value of her work:

> D7: Occasionally, I would feel--you were out prostituting yourself and then you come here, and we do our best, you spit on the floor...And then I started thinking--why should I be working with these people and exposing my life because they were promiscuous...that was a short time I thought that...And I still feel guilty for feeling that way, but I would say that most of the staff go through a time like that, where you question why are we doing this--because it is a very high-risk area.

She suggests that she still gets periodic feelings of resentment at which time she questions the value of her work, "Why am I doing this? We work so hard here". These feelings usually arise when she works a lot of overtime. The other nurses who were exposed did not express resentment towards the patients. One nurse who has not been exposed said that she has often wondered whether she might blame the patient should she ever become exposed.

These latter accounts suggest that the issue of responsibility and blame, along with a questioning of the value of work, tends to surface at times when nurses also feel vulnerable to risk. Exposure appeared to break down the meaningfulness of work and the justification of risk. A redefinition of the patient in more evaluative terms may be viewed as a coping response to the loss of control over risk. Actual exposure shatters the constructed definition of risk as controllable and manageable. Blaming the patient is a way to make sense of the situation. Moreover, derogating the patient by attributing the nurses' own risk to the patient's irresponsible behavior may make it easier to justify avoidance behavior, thereby absolving the nurse of guilt (Wortman & Dunkel-Schetter, 1979).

8. Construing Benefit

The search for meaning following threatening events involves understanding not only why the event occurred but also what implications or significance it has had in one's life (Taylor, 1983). Nurses who were exposed also attempted to make sense of the event by reinterpreting the exposure in terms of the "benefits" they derived. Although the two nurses who experienced the most distress evaluated the patients more negatively at some point, only one maintains such a stance. In contrast, the other admits that she "still feels guilty" about feeling that way but accepts that such feelings are only temporary. Although both of these nurses found the event of exposure to be tramatic and do not wish to resurrect its pain, D7 is able to reinterpret it in a positive light. For her, the meaning gained from the experience was self-knowledge and self-change:

> It's something I went through...and I think I needed to feel that, to help me grow...And I'm glad I didn't leave the unit at that time because I never would have really dealt with those feelings...I guess I needed to face it.

Her exposure was the impetus to her own personal growth about the meaning of death which has made her more comfortable working with PWAs and has contributed to the meaningfulness of her work. Of particular interest is her realization that both she and the patient are important when assessing risk situations.

D1, on the other hand, has more difficulty construing positive meaning from the experience. She maintains her evaluative feelings toward PWAs and states that the most important outcome of her exposure was "not to trust others" in terms of their use of precautions. She has become "more phobic" about risk and has become "obsessed with preventive behavior" (Janoff-Bulman & Frieze, 1983). Such behavior is not uncommon following "victimization" and provides victims with a sense of control by minimizing their "newfound vulnerability" (Janoff-Bulman & Freize, 1983). This hypervigilant behavior in relation to self and others was discussed in Chapter V.

C. SUMMARY

Nurses' reactions to hypothetical situations revealed that they would be "terrified" if they were actually exposed, and indeed for some nurses actual exposures were very traumatic. Exposures are characterized by event uncertainty (in terms of outcome) in spite of the fact that the event has occurred. Even the event of testing is fraught with uncertainty. The small likelihood of seroconversion appears to be of little comfort when confronted with exposure. In a sense, nurses frame risk differently when exposed (Tversky & Kahneman, 1981). They all but ignore the low probability of seroconversion and concentrate on the high probability of dying should they seroconvert (this was particularly so for those exposed to blood). That is, they assess the probability of unlikely events as more probable because of their seriousness while underweighting the low probability of seroconversion.

Exposures "expose" nurses' vulnerability to risk by disconfirming their previous belief that "being careful protects". Moreover, cognitive coping strategies previously used to decrease vulnerability are no longer protective. Distancing techniques also are no longer functional in decreasing the saliency of risk. With its increased saliency, risk is no longer perceived as a "normal" part of their everyday work. The socially constructed definition of risk as manageable has been shattered. Furthermore, nurses perceive little control to prevent the consequences of exposure. In addition, and somewhat paradoxically, actual exposures are peculiar as victimizing events because of the degree of uncertainty about whether "harm has been done".

Nurses' efforts to manage exposures reflect attempts to reestablish a sense of control. They minimized the threat by redefining the event to "rule out harm". They also attempted to reduce threat by avoiding situations that elicit fear. In addition to minimizing their self-perception as a "victim" (Taylor et al., 1983) through reappraisals of the event and distancing, nurses also worked to avoid the social consequences of having been exposed. Their anticipation of such consequences may lead them to minimize their "victimization" status by nondisclosure. Keeping silent about the exposure may be seen as an attempt to manage fear and maintain professional self-esteem. In some instances, not talking about the exposure was an attempt to protect families from worry, to prevent family conflict, or at the very least to preserve existing relationships. Finally, nurses attempted to interpret the exposure's occurrence by assigning responsibility.

The more long-term behavioral and cognitive consequences of exposure may be viewed as ways to increase control and to restore a feeling of safety. Redefining the patient may help to justify avoidance which in turn increases actual control over risk. Increased vigilant behavior to avoid subsequent exposures is a further way to regain a sense of control.

X. SUMMARY AND CONCLUSIONS

In this chapter, I will recapitulate the major findings of the study and relate them to the existing theoretical literature. The major findings are organized around four areas: sense of control, appraising risk as meaningful, the "professional" nurse, and exposures as "victimizing" events. The chapter will conclude with the limitations of the study, directions for further research, and implications for health care agencies.

A. SENSE OF CONTROL IN THE CONTEXT OF UNCERTAINTY

The dominant theme underlying nurses' efforts to manage the threat of physical contagion is developing a sense of control over risk. Coping efforts were directed toward preventing exposure by engaging in cognitive and behavioral strategies that would reduce the likelihood of coming in contact with body fluids. In addition to such efforts to objectively modify the risk situation, nurses also cognitively managed the threat by reappraising the risk to decrease their vulnerability and by avoiding situations that may elicit negative feelings. The use of these strategies reduced uncertainty and where this was not possible allowed the nurses to tolerate it and "live with it". In essence, nurses worked to create and maintain a sense of control over the circumstances of risk and over the emotions risk engenders.

The centrality of achieving a sense of control in nurses' coping efforts is related to the nurses' perceptions of risk. Their assessment of risk focused on two major dimensions: the seriousness of the consequences of risk (particularly the fatal nature of AIDS), and the uncertainties inherent in the risk situation. In relation to the latter, uncertainty is both a "situation" variable and a "person" variable (Lazarus & Folkman, 1984). More specifically, uncertainty resides in the incomplete knowledge of the transmission of HIV infection and its progression, and in the nurses' perceptions of their ability to protect themselves from exposures to HIV. Moreover, the nurses' perceptions that they have little control over the *consequences* of exposure heightens the need for controlling the *occurrence* of exposure. This results in increased efforts to prevent exposure and to reduce the fear that may accompany perceptions of lessened control.

The *seriousness* of the consequences and the *uncertainty* inherent in the risk situation may each in themselves increase the need for control but in concert may heighten this need. Both the risk and coping literature address the significance of these variables on perceived threat. Ambiguity of the situation itself can be threatening by limiting a sense of control (Lazarus & Folkman, 1984). There is anxiety produced about the nature of the threat, whether it will happen, and what might be done about it. Moreover, it has been suggested that ambiguous events are a situational threat particularly if they are unfamiliar and involve a highly significant aspect of life (Lazarus, 1974; Mishel, 1980).

Researchers in the field of risk analysis similarly suggest that the degree of uncertainty attendant in the risk situation (e.g., what is known about the probability of its occurrence and its consequences) combined with its catastrophic consequences are important factors in risk perception (e.g., Otway & von Winterfeldt, 1981; Vlek & Stallen, 1981; Slovic et al., 1980; Fischhoff et al., 1978). Slovic et al. (1980), employing a factor analysis technique to determine the interrelationship of a variety of risk characteristics, conclude that risk has two basic dimensions. The first of these, termed "dread", has to do with the serious consequences of the event; the second factor, termed "familiarity", relates to the extent to which the risk is known. Similar findings were reported by Vlek & Stallen (1981) and by Fischhoff et al. (1978). Moreover, Folkman (1984) argues that the greater the appraisal threat, the more significant will be the concept of control. The interrelationship of control and seriousness is also evident in Hale's (1987) position that the severity of the consequences assumes greater importance when the perceived controllability over occurrence decreases.

The importance of control and seriousness is also suggested by Rachman (1978) who argues that threat is related not only to perceived control over the occurrence of an event but also to perceived control to reduce the effects of the event should it occur. He contends that the perceived ability to deal with the effects of a stimulus may "confer a degree of immunity on the anticipatory phase of a fear reaction" (p. 262). The importance of this two-fold nature of control is exemplified in this study. Because nurses cannot control the consequences of exposure, their fear is heightened which in turn may make prevention of the occurrence all the more significant.

The present research suggests that a sense of control is achieved through a variety of strategies. The use of precautions resulted in a cognition that "being careful protects" and reflects a sense of mastery over the occurrence of exposure. In their efforts to make risk manageable, nurses also employed cognitive strategies that minimized the threat or diverted attention from the risk. Minimizing the threat reduced fear by decreasing the sense of vulnerability. Distancing strategies help to sustain a sense of mastery by bracketing those situations where "being careful" may not always protect. I propose that these cognitive strategies may be particularly significant in situations characterized by chronic uncertainty and where the consequences of risk are serious. Persons exposed to serious risk on a regular basis must "chronically" be on guard. For risk not to dominate but still be attended to, coping strategies that decrease both the possibility of exposure and the "intrusiveness" of risk may be important if fear is not to interfere in carrying out role requirements. In such situations, a sense of control results from the use of both problem-focused and emotion-focused strategies and reflects a balance of efforts aimed at vigilance and reassurance. The use of these strategies permits nurses to both tolerate and reduce uncertainty.

In this study, all nurses used strategies directed at preventing exposures. However, those nurses who felt most threatened with risk focused on areas of uncertainty that were most difficult to control: accidental exposure from others' mistakes, unpredictability of patients' responses, and medical uncertainty. While other nurses also acknowledged these uncertainties, they used cognitive strategies to distance from the threat or reappraised the event to make it less threatening.

Because the perception of control is constructed, it is also subject to disconfirmation. Disconfirmations arise from situations that objectively increase the risk of exposure or at least remind nurses of their own vulnerability. Disconfirmation of control also may arise from personal relevances that appear to have little relationship to the risk situation itself. The most traumatic disconfirmation, however, occurs when nurses perceive that they have been exposed to HIV. When actual exposures occur, the sense of control is shattered because the nurses' definition of risk as manageable is threatened. Coping resources previously used to effect control turn out to be "inadequate". Moreover, the resources to cope with the actual exposure also are perceived to be inadequate in preventing its consequences. In these situations, nurses attempt to diminish fear by "rebuilding" a sense of control to decrease their feelings of vulnerability. They work to reappraise the event in terms of its likelihood of having caused harm. They also focus efforts on controlling the emotional distress more directly by avoiding situations that may elicit fear. Consequent to these exposures, nurses may engage in efforts to find meaning in the situation and may increase their vigilance to prevent subsequent exposures.

The importance of "control" in coping with risk and uncertainty ties in with a large body of literature indicating that feelings of control enhance coping (Slovic et al., 1980; Pearlin et al., 1981; Lazarus & Folkman, 1984; Rachman, 1978; Thompson, 1981; Averill, 1973; Rothbaum et al., 1982; Taylor, 1983). Most researchers acknowledge the dual nature of problems posed by stressors (risk): the need for instrumental resolution and the regulation of emotion (Antonovsky, 1987; Lazarus & Folkman, 1984; Pearlin & Schooler, 1978; Mechanic, 1962). Coping strategies that target these two dimensions are seen as efforts to achieve control even though they differ in the facets of the situation they control. Efforts directed at changing the situation causing the concern may lead to "actual" control over the situation, while efforts that regulate emotions enhance the individual's control over distress by altering the meaning of the situation to make it less threatening or by dealing with negative emotions directly (Lazarus & Folkman, 1984; Taylor et al., 1983; Silver & Wortman, 1980). Some researchers have divided the latter category into two more distinct dimensions: perception-focused coping, which alters the meaning of the situation, and emotion-focused coping, which alters the feelings elicited (Pearlin & Schooler, 1978; Mechanic, 1962; Thoits, 1984). It is acknowledged that there is an interrelationship between the two major types of coping in that both forms are usually evident in most stressful encounters and that they may facilitate and/or inhibit one another (Folkman, 1984; Folkman & Lazarus, 1980). For example, problem-focused strategies alter the situational circumstances that elicit an unpleasant or undesirable emotion; emotion-focused strategies may diminish emotional distress so that problem-focused strategies can be executed. An optimal balance of these strategies would preserve a tolerable inner emotional state while preserving a sufficient level of threat to motivate vigilant attempts at problem-focused strategies (Folkman, 1984; Janis, 1967). Although definitions of control are often articulated in terms of mastery in modifying the threatening aspects of the environment, "coping that is used to tolerate, minimize, accept, or ignore irremediable events are just as important in the adaptational armamentarium as problem solving strategies to master the environment" (Lazarus & Folkman, 1984, p. 139).

Rothbaum et al. (1982) also emphasize the importance of achieving a balance or "optimal adaptation" of primary and secondary control, in which individuals both "change the world" and "change the self". In this model, control is perceived as a two-process construct in which the individual attempts to change the world so that it fits the self's needs (primary control) but also attempts to fit in with the world or "what is" and to "flow with the current" (secondary control). While primary control involves efforts to influence external realities (akin to problem-focused coping), secondary control emphasizes modifying one's self cognitively in an effort to accommodate to existing realities, thus producing a "manipulated sense of control" (Taylor, 1983). In contrast to the helplessness and locus of control theorists who place a major emphasis on the individual's ability to exert control over the outcome of events (Rotter, 1966; Seligman, 1975), these authors argue that because control is so highly valued, the motivation to feel "in control" is rarely abandoned, even when individuals perceive that their actions may not change the situation. Individuals may shift from one method of striving for control to another. Vacillation between strategies is common. Examples of secondary control processes delineated by Rothbaum et al. include: (a) "illusory" control, through which people align themselves with the forces of chance, (b) "vicarious" control, whereby people achieve control by associating with powerful others, (c) "predictive" control, through which individuals work at controlling disappointment, and (d) "interpretive" control, which refers to the search for meaning and understanding. These processes, by which individuals may accommodate themselves to seemingly uncontrollable events, enhance perceptions of control.

Finally, the need to achieve control over both the emotional and instrumental aspects of threatening situations is suggested by Janis' (1967) model of adjustment to threat. While increased fear may lead to a heightened vigilance involving increased attention to threat-relevant events and/or a heightened need for blanket reassurance to alleviate emotional tension, an attitude of "compromise formation" describes an optimal balance of reassurance and vigilance. Such a balance is characterized by a discriminate vigilance in which individuals seek information about the threat and remain alert to signs of oncoming danger, and by a discriminate reassurance in which they expect to be able to cope successfully. An attitude of compromise formation was manifested by those nurses who see threat as serious but have a sense of control over risk. Such an attitude satisfied both vigilant and reassurance needs. On the other hand, second-order risks arise when the perceived level of threat is too great or not great enough.

This general theoretical discussion of the importance of sense of control in adapting to the risk of HIV infection and AIDS provides a backcloth for the consideration of the major categories of strategies that nurses used to achieve a sense of control. I will now relate these to the extant theoretical work in the area.

1. Maximizing Safety Through the Use of Precautions

One of the major strategies to exert control over risk is the use of precautions. Nurses, for the most part, have confidence in the precautions used to protect themselves. The precautions provide a wide margin of safety for many potential uncertainties. While in some sense it may be said that nurses are "conservative" in their approach, on the other hand, their use of precautions reflects their perceptions of the seriousness of risk and the uncertainties surrounding the disease. Nonetheless, from a more "objective" standpoint their use of precautions, particularly that of gloving, is discrepant with the scientific evidence about the actual danger of occupational exposure.

Stock et al. (1990), in a review of six prospective studies on the risk of HIV transmission to hospital workers, found that the risk of seroconversion after a needlestick injury from a PWA is 0.36%, while the risk of seroconversion from other types of exposure (e.g., mucous membrane or skin) was too low to be measurable. These authors inform us that there is little evidence to support the effectiveness of the CDC recommendations that focus on barrier precautions to prevent bloodborne infection (i.e., universal precautions). Although there have been three instances of HIV seroconversion after exposure of *nonintact* skin to HIV-infected blood, there is no evidence of HIV transmission through exposure of intact skin or mucous membrane.

Likewise, Henderson (1989), in a review of ten longitudinal studies, calculated the risk of seroconversion following a documented percutaneous (e.g., needlestick) exposure to blood or blood-containing fluid to be 0.43% with a 0% risk for mucous membrane exposure. This researcher reminds us that the only implicated route of HIV transmission was percutaneous or "inapparent parenteral exposure" (through cuts in mucous membrane or skin). Moreover, there have been no seroconversions in HCWs who have *not* been exposed to blood or body fluids, thereby ruling out "casual contagion". Finally, all cases of HIV infection among HCWs have occurred following exposure to blood, with only one case involving bloody pleural fluid.

The above studies suggest that the greatest risk of exposure occurs from needlestick injuries. Nurses too consider the most likely manner of exposure to be from needlestick injuries incurred from intramuscular injections, heplocks, or drawing blood. In short, they perceive themselves to be at greatest risk for exposures other than those for which they glove. This may be because it is more difficult to protect oneself from accidental exposure from needlestick injuries in spite of being careful.

The literature is equivocal in the reported estimates of the "preventability" of percutaneous injuries. The Federal Centre for AIDS (Canada) prospective study of HCWs exposed to HIV revealed that of the 63% of exposures that resulted from needlestick or scalpel injuries, 12% occurred when giving an injection, 17% when inserting IV lines, 19% when drawing blood, 6% while manipulating equipment, 2% when recapping a used needle, 1% when improperly disposing of needles, and 6% for "other" reasons (Elmslie et al., 1988). Some writers emphasize the preventability of such injuries. For example, McCray (1986) maintains that 40% of needlestick accidents are fully preventable if recommended guidelines are followed. Similarly, Gerberding (1988) believes that the "vast majority" of needlestick injuries could be prevented by proper handling and disposal of needles. In contrast to those who emphasize the preventability of exposures, other writers focus on the "nonpreventable" aspects of these injuries. For example, Gerbert et al. (1988) contend that there has been too little discussion in the literature about accidental exposures. Instead, HCWs are led to believe that if they follow infection control procedures they will be safe (in other words, that "being careful protects"). They cite that of the HIV-infected HCWs to date, half were exposed through needlesticks or cuts with sharp objects, and that many exposures occurred despite barrier and sterilization precautions. In short, even allowing for the wide discrepancy among these various estimates of risk and their "preventability", one must acknowledge that there is a considerable margin of "accidental" exposure that may not be preventable.

Nurses' use of precautions as reported by other researchers in other settings varies considerably. Bennett (1987) suggests that for every nurse that is overcautious, there are others who are "cavalier". Brennan (1988) found that 83% of respondents working with PWAs reported that their hospital policy requests that they wear gloves when caring for all PWAs, 46% indicated that they are required to wear gowns when caring for PWAs, and 29% said they are requested to wear masks. The nurses in her study also commented that they wore gloves for all patient care and protect themselves from all body fluids of all patients. In a recent study by Kerr and Horrocks (1990), 40% of nurses would use "unnecessarily severe" isolation techniques when caring for PWAs with 30% indicating that they would mask, gown and glove for all interactions with patients. Turner et al. (1988) also found that 57% of nurses stated that they felt it was unsafe to care for HIV-infected patients without "full isolation garb". In terms of the efficacy of precautions, Brennan's (1988) study revealed that only 63% of nurses believed that the precautions are sufficient to protect them, while Wiley et al.

(1990) found that 83% of nurses thought that adherence to the universal precautions would protect them. Of particular interest in the latter study is the finding that there was no significant difference in the perception of preventability when comparing nurses who had been "exposed" with those who had not been exposed. This may indicate that those nurses who were exposed have regained their sense of control over exposure.

Given the above information, one is compelled to ask whether nurses are being too vigilant in protecting themselves from "danger" that poses little actual threat. On the other hand, can they protect themselves from the "real" threat? Does "being careful" lead to actual control in preventing exposures that are most likely to lead to seroconversion or is "being careful protects" an illusion? These questions, while rhetorical, suggest that the perception of risk is a social construction that is based not solely on "objective" assessments of risk probabilities and epidemiological evidence. The increased attention to precautions can be interpreted from a variety of perspectives ranging from psychosocial theories of cognitive heuristics and biases to more cultural explanations that take into account the symbolic features of the disease. However diverse these explanations, they all reflect the nurses' need to maintain control over perceived uncertainty.

From the cognitive perspective of "information bias", Herek & Glunt (1988) suggest that the anxiety evoked by AIDS may lead to a hypervigilant style of decision making (Janis & Mann, 1977) in which the most readily available solution is embraced. Because HIV is transmissible, it may be equated with other transmissible infections. Such a misuse of the "representative" heuristic (Tversky & Kahneman, 1974) may result in the use of isolation procedures that are appropriate for other viruses but not HIV. Moreover, Herek and Glunt suggest that reassurances from "experts" that AIDS is not like other diseases may be treated with skepticism because prominent examples of situations where information about transmission was wrong are easily recalled, even though these situations are not comparable (another misuse of the "representative" heuristic).

The recommended precautions and the nurses' adaptations of them also reflect a way to seek a sense of control over uncertain knowledge. Nurses solve ambiguity by choosing an interpretation and acting on it (Lazarus & Folkman, 1984). This interpretation may reflect a "school of thought" that provides guidelines when no clear answers exist. Light (1979) posits that one technique for controlling uncertainties of knowledge is to adopt a "school of thought". Schools of thought provide answers in the form of philosophies or beliefs to the unresolved problems that limited knowledge produces. The "school of thought" adopted to reduce the uncertainty surrounding AIDS may be that all body fluids are potentially infectious. Universal precautions provide guidelines that maximize safety and give rise to the belief that "being careful protects". Furthermore, in conditions of uncertainty, individuals will tend to seek closure toward the nearest model that will restore order and, therefore, may rely on habits and skills that have worked in the past (Light, 1979). This may help to explain why nurses initially used the more "complete" isolation technique (including masks, gowns, and gloves) with which they were familiar.

The increased attention to precautions may also be viewed from the perspective of "ritual". Rituals arise in conditions of uncertainty and gain importance in proportion to the degree of uncertainty (Light, 1988; Poggie, 1980; Janis, 1951/1982; Roth, 1957). The role of ritual in uncertainty and danger has been addressed by many social scientists beginning with the seminal work of Malinowski (1948). Malinowski, in his classic anthropological work describing the use of magic among Trobiand fishermen who were faced with uncertain catches and personal danger, proposed that through the performance of appropriate rituals people work off tensions aroused by fear. Poggie (1980), in a recent study of fishermen's adaptation to personal risk, also found that ritualistic behavior increased a sense of control over danger.

In professional work, "techniques" may serve as rituals (Light, 1988). In this regard, the classic work of Roth (1957) offers further support that rituals arise in conditions of uncertainty. Roth's study was performed on a tuberculosis ward at a time when the modes of transmission of tuberculosis were uncertain. This uncertainty led to ritualized procedures that were often based more on convenience and ease of administration than on "rationally deduced probabilities" of infection. Wolf (1988), in an in-depth study of nursing procedures as ritual, found that the use of gloves often coincided with "magical thinking" that offered "symbolic protection" over and above the scientific information about transmission. While plastic disposable gloves did provide an added protection against pathogenic microorganisms, scientific theories of microbial transfer were not offered for their use. The use of gloves was ritualistic. Further, the nurses in her study also chose to wear gowns even though this was unnecessary from the standpoint of medical asepsis.

The increased attention to precautions may also reflect the philosophy of the professional culture. Rothman (1987) maintains that public health has a long tradition of maximizing the assessment of risk and treating unknowns as unfavorable outcomes. Under this maxim, when in doubt, risks are assumed to be maximal and recommendations cover everything possible to avert them. In short, "when risks cannot be ruled out, they must be ruled in". Similarly, Rosenberg (1989) suggests that during times of uncertainty, such as "epidemics", individuals will seek understanding in terms that promise control, often by minimizing their own vulnerabilities. He argues that measures to arrest epidemics are essentially "rituals" that affirm a belief in professional knowledge and science and provide a measure of control. Precautions may represent a faith that science and technology will provide that control.

On a more proximal level of influence, Janis' (1967) work on fear suggests that a major behavioral consequence of fear is a strong need for vigilance. The manifestations of this need include a broad class of behaviors that can be described as "increased attentiveness to environmental events and readiness to take protective action in response to any cue perceived as indicating the onset of danger" (p.62). Janis tells us that in states of high threat people will consider "loopholes" in any solution that offers a *degree* of safety. The nurses' own uncertainties combined with the medical uncertainty surrounding the disease and its transmission may lead to an emphasis on "theoretical" risk and an overcautious approach. Further to this, Janis (1962/1982) posits that the strength of vigilant tendencies will be increased when the individual perceives that there is "no escape route" once danger materializes. For HCWs, not perceiving control over the consequences of exposure may constitute "no escape route". Janis also suggests that vigilance will increase if persons perceive that adequate protection for themselves and their families will require self-initiated action. In my study, nurses perceived that protection was primarily dependent on their individual actions.

Finally, the increased attention to precautions and body fluids may be interpreted from a more symbolic perspective (Eisenberg, 1986; Nelkin & Hilgartner, 1986). While agreeing that part of the preoccupation with body fluids is attributed to medical logic (since the virus is found in certain body fluids), these authors suggest that a cultural logic may also be at work. Body fluids such as blood, semen, saliva, urine, and stool are seen as common cultural symbols of contamination symbolizing impurity, pollution, danger, and defilement (Douglas, 1966). Indeed, my data reflect the symbolic meaning of body fluids. One nurse, it will be recalled, used words such as "dirty, infected, contaminated, evil" to describe her feelings when exposed. Other research (Wolf, 1988) also suggests that body fluids (particularly excretory fluids) are treated by many nurses as potentially contaminating.

The increased attention to precautions is also brought out by Sontag (1977) in her symbolic interpretation of disease. She writes that three elements add to the perception that an illness is contagious: mystery, death, and punishment. A disease that is veiled in "mystery" (intractable, of unclear origin, and for which there is no effective treatment) and that is fatal will be felt to be contagious even if it is not. Death is seen as uncontrollable, the "obscene mystery, the ultimate affront" (p. 55). Because death is "taboo", any illness that becomes a synonym for death accrues the same stigma of repulsion and transmissability (Meisenhelder & LaCharite, 1989; Sontag, 1977). Sontag (1989), citing evidence from public responses to venereal disease, alleges that infectious diseases to which sexual fault is attached always inspire fears of easy contagion and "bizarre fantasies of transmission by nonvenereal means in public places" (p. 27). In short, AIDS appears more contagious because it represents the unknown, the uncontrollable, and the misunderstood (Meisenhelder & LaCharite, 1989). Moreover, while all epidemics may give rise to similar practices of avoidance and exclusion, Sontag (1989) predicts that with a "slow-moving" epidemic these same precautions may take on a life of their own. Finally, to explain the increased attention to preventing exposure, she suggests that with any epidemic in which there is no immediate prospect of a vaccine (i.e., to control the *occurrence* of the disease), much less of a cure (i.e., to control the *consequence* of exposure), prevention plays a larger part in consciousness. This may be accentuated in a society that has an "incessant need to master the uncontrollable", as evidenced by our attention to "worst-case scenarios" (Sontag, 1989).

2. Minimizing Risk Through Reappraisal

As I have pointed out above, nurses' efforts at behavioral control over risk focus on *maximizing* safety by attending to risk possibilities. Adhering to precautions that maximize safety leads to a reappraisal of risk as *minimal*. Most often this reinterpretation of risk involved comparisons that increased nurses' confidence in preventing exposure and that convinced them of the likely routes of HIV transmission. More specifically, nurses reassured themselves that their efforts at behavioral control were effective, namely, that "being careful protects". Moreover, their social comparisons reassured them that they were less vulnerable than others.

The minimization of risk can also be interpreted using Janis' (1967) model of adjustment to threat which suggests that fear, in addition to eliciting a strong need for vigilance, may also lead to a strong need for alleviating emotional tension by obtaining convincing reassurances. Like vigilance, reassurance may include changes in both cognition and behavior. An increased need for reassurance is manifested by selective attention to, and recall of, communications that minimize the danger or play up the protective resources available for coping.

The coping literature is replete with research findings demonstrating that when individuals are confronted with threatening events they engage in cognitive strategies that reduce their feelings of vulnerability and thereby minimize the perception of threat. Vulnerability and victimization studies suggest that perceptions of invulnerability may reflect a need for personal control. Some have argued that maintaining an "illusion of invulnerability" may be adaptive by providing a feeling of control (Taylor, 1983; Langer, 1975; Janis, 1951/1982; Musil & Abraham, 1986; Perloff, 1983). Feelings of "invulnerability" may allow one to carry out everyday activities without being "hypervigilant" and eternally on guard (Perloff, 1983). Taylor (1983), in a study of women with breast cancer, found that self-deceptions in the form of illusions of control facilitated coping with terminal illness. In her theory of cognitive adaptation to threatening events, she argues for the importance of illusions, even suggesting that the individual's ability to adjust to threatening events may rest on the ability to form and maintain a set of illusions. For Taylor, illusions are perceptions of reality, a set of beliefs that structure facts in a particular way. The nurses' cognition that "being careful protects" was such a belief. Nurses' social comparisons demonstrate that they look at known facts in a particular light to present a positive picture of their own vulnerability. In a similar vein, Mechanic (1974) asserts that misperceptions of reality may aid coping and mastery, energize involvement and participation in life events, and alleviate pain and discomfort, whereas too much self-awareness and introspection may even retard coping efforts. In like measure, Golin et al. (1979) found that nondepressed individuals were more likely than depressed individuals to display an "illusion of control". Further, Wortman (1983) suggests that a heightened vulnerability, while protecting one from actual harm, may have deleterious effects on general well-being because increased vigilant behavior may make the event appear to be more salient rather than less threatening.

While these researchers emphasize the adaptiveness of a "reasonable" invulnerability, they do point out that perceived invulnerability may be maladaptive if it prevents one from carrying out measures that would decrease "objective" vulnerability. Moreover, there is some evidence that individuals with a high sense of invulnerability may have more difficulty coping with negative events when they do occur (Wortman, 1976; Perloff, 1987; Janoff-Bulman & Frieze, 1983). For example, Scheppele and Bart (1983) found that women who "followed the rules" but were victimized by rape had the most difficulty adjusting. They suggest that this may be because it is harder to use "behavioral self-blame" as a way of reestablishing a sense of control.

On the other hand, Taylor (1983) provides evidence that disconfirmations are not as disastrous as others may contend. Her concept of "learned haplessness" implies that disconfirmations of expectations are a fact of life that people quite readily learn to accept; that is, individuals are perceived as "adaptable, self-protective, and functional in the face of setbacks" (p. 1170). Therefore, disconfirmation of a single effort at maintaining control will not necessarily lead to the consequences foreshadowed by reactance (Brehm, 1966) or learned helplessness (Seligman, 1975) theorists. Instead, Taylor proposes that individuals will look to other avenues and areas to control if one set of illusions are disconfirmed. The data in my study do not provide clear evidence on this issue. One nurse who was exposed said regarding her feelings of invulnerability that "you feel you are too careful for anything to happen". However, she did not appear to have any more difficulty adjusting to the exposure than did others. Another who stated that she was always "so careful" did have difficulty adjusting. However, another who was less careful also had difficulty adjusting. Most exposures, however, do not occur because of a nurse's carelessness per se. All seem to be relatively careful prior to exposure. It was not possible to ascertain if there was a difference in feelings of vulnerability prior to the exposure.

In addition to minimizing risk by reappraising events as less likely to cause harm, nurses also reappraised risk as inevitable or "normal". By normalizing risk, nurses control its intrusiveness because it is no longer perceived as unfamiliar or unusual, thereby making it more predictable and less salient. Moreover, a feeling of "shared fate" that "we're all in the same boat" may be protective in reducing fear. Perloff (1983) found that a perception of "universal vulnerability" that involves seeing both oneself and others as equally vulnerable to a negative event decreased anxiety whereas perceptions of "unique vulnerability" were associated with greater anxiety and depression and with lower self-esteem. Perloff (1983) suggests that victims with a sense of "universal vulnerability" are more likely to attribute misfortune to external causes. Such external attribution is less likely to cause changes in one's self-image thereby making it easier to maintain a sense of invulnerability and personal control. Affiliation research (Schachter, 1959) suggests that victims of negative events may derive comfort from knowing of or being in the presence of others in the same boat (Coates & Winston, 1983; Wolfenstein, 1957; Rachman, 1978). Perloff (1983) concludes that perceptions of "consensus" serve important ego-defensive functions by mitigating feelings of deviance. The literature on peer support groups further supports the idea that perceived universal vulnerability may be adaptive.

3. Protective Distancing

In addition to controlling the aversiveness of risk by changing their perceptions of the threatening event, nurses also engaged in avoidance strategies that allowed them to distance from the risk and the negative emotions it may engender. Withdrawing attention from upsetting cues reduces the tension such cues may elicit. While classical psychoanalytical theory views denial as a pathological defense mechanism (e.g., Vaillant, 1977), recently an increasing number of authors have supported the premise that avoidance and denial may be adaptive (Lazarus, 1983; Janoff-Bulman & Timko, 1987; Horowitz, 1983). Lazarus suggests that avoidance behaviors such as "not talking about it" may be functional and are not necessarily a disavowal of reality but instead are an attempt to avoid being overwhelmed by the problem. Distancing may prevent one from becoming totally preoccupied with the issue, thus allowing one to get through stressful situations without "falling apart" emotionally. Moreover, avoidance does not necessarily interfere with problem-solving but may actually enable problem-focused coping in highly stressful situations (Folkman & Lazarus, 1988). These researchers emphasize the importance of coping strategies "fitting" the extent to which the outcome is within the individual's control. In this regard, Lazarus (1983) suggests that detaching oneself from the threatening event may be particularly adaptive when "nothing can be done". He points out that denial and avoidance may be adaptive for certain facets of a situation but not for the whole. Nurses in this study avoided thinking about all possibilities and their implications while remaining vigilant in matters where they could assert control. That is, avoidance strategies did not interfere with the use of precautions to protect themselves. In contrast to the learned helplessness researchers (Seligman, 1975) who suggest that an encounter appraised as uncontrollable may predict helplessness and depression, stress researchers who posit the adaptive value of denial suggest that negative outcomes occur only if reappraisals and cognitive coping efforts do not alter the meaning of the situation or ameliorate the distress (Coyne et al., 1981; Folkman, 1984).

"Not talking about it" was a common coping strategy in this study. While it was "protective" in preventing fears from surfacing and thereby may have ameliorated distress, it may have been maladaptive in those situations where it closed doors to support from others. For example, nurses' silence surrounding exposures may have decreased fear but it also prevented them from benefiting from an "anticipatory socialization" that perhaps would be beneficial should they become exposed. Keeping silent about their initial fear of caring for PWAs also prevented nurses from "normalizing" their feelings. The ability to engage in a social comparison (Festinger, 1954) to compare perceptions and obtain information about the threat may have led to a reduction of anxiety while preserving their self-esteem (Schachter, 1959). "Not talking about it" may have been most maladaptive when nurses became exposed. In such situations, seeking support from sympathetic others who have themselves experienced the trauma of exposure may have reduced anxiety.

4. Sense of Control in the Occupational Risk Literature

The significance of the concept of control in the face of uncertainty has received considerable research attention in the occupational risk literature. Lack of perceived control over risk exposure has been found to decrease risk acceptability and influence coping efforts. Unfortunately, much work in this area does not examine how workers cope with risk on a day to day basis. Perhaps the most thorough work that "allows" workers to talk about their feelings and responses is Nelkin and Brown's (1984) study of workers exposed to chemical risks. This study revealed a variety of coping strategies that could easily be classified as "efforts at achieving a sense of control". These workers engaged in both problem-focused and emotion-focused strategies to achieve a sense of control. Workers used precautions such as protective clothing to avert danger. As well, they reassured themselves of minimal risk through comparison strategies, normalized risk as part of the job, and avoided thinking about all the possibilities. The degree of perceived control over risk positively influenced the workers' perception of and response to risk. Problems of control were usually addressed in terms of the workers' sense of helplessness in dealing with risks that they felt had the potential to be "controlled" even though they themselves felt impotent to do so. This sense of powerlessness reflected a lack of confidence in management's efforts to control hazards. Management was perceived as not understanding the realities of the workers and ignoring the judgments of workers who were in a position to offer contributions. Management was also perceived to place profit over worker health. Workers in this study often avoided considering the dangers they confronted because attention to danger led to worry and not to constructive change which they perceived as being beyond their power. However, those who felt in a position to exercise some control over working conditions were generally less worried about risk.

Nelkin and Brown's study addresses an important issue and provides a "cautionary" note when emphasizing the adaptive nature of avoidance and distancing techniques. Such prudence is especially crucial in those occupational settings where risk and danger are perceived differently by workers and managers and where responsibility to decrease actual danger through engineering controls is deemphasized and replaced by an attitude of individual responsibility. In short, where constructive change in the level of risk can be achieved, "avoidance" and "distancing" may be maladaptive. Even in the situation of HIV infection among HCWs, structural resources that would decrease the possibility of exposure need to be considered. This would include the availability of proper equipment as well as adequate staffing. As Pellegrino (1989) states, "Hospitals should supply everything needed for maximum protection of health workers within the limitations imposed by the rights of patients" (p. 42). Stock et al.(1990) underline this point by advocating engineering controls where possible: "We cannot rely only on puncture proof containers to prevent needlestick injuries. It may be possible to redesign percutaneous lines and surgical equipment and to develop alternatives to suturing and cutting with blades" (p. 945). In this regard, Jagger et al.

(1988) provide specific suggestions for replacing hazardous devices with safer designs that would reduce the use of needles and, where this is not possible, to render their use less hazardous.

Social workers in ghetto areas (Mayer & Rosenblatt, 1975) employed many of the coping strategies that nurses used to gain a sense of control over the dangers they perceived. Social workers forestalled the likelihood of assault by various behavioral strategies that were effective in warding off danger. However, workers did not always "feel safe" because of the ever present possibility that their "luck may run out". Like the nurses, they attempted to minimize the risk by reconstructing their reality using such techniques as downward comparison to reduce cognitive dissonance ("we are actually safer because of where we are"). They also insulated themselves from feedback that potentially could increase their fears by "not talking" about their feelings with others. As with the nurses, this led to a perceived deviance that was perceived to be maladaptive in the long term.

In a study of high steel workers, Haas (1977) found that workers were cautious and careful in their use of precautions but that they also used a variety of strategies similar to those used by nurses to help them accept the ever-present uncertainty. They acknowledged and developed a healthy respect for the danger but "did not let it get to them". As one respondent said, "You make the job as safe as you can and then you don't worry about it". Similarly, Fitzpatrick (1980), in a study of underground miners, found that workers make the risk "manageable" by carrying out what precautions they can while ignoring that which is not controllable, thereby exerting control over the emotional distress such attention may create. A stoical attitude developed around events that were perceived to be improbable and over which miners perceived little control. They "don't worry about it because there is nothing you can do anyhow". While they believe in the controllability of certain events, they also recognized that no controls are absolute and "accepted" the uncertainty. For these miners, danger was not all "encompassing". They, like the nurses, believed that "skill pays off". While they worked to make the job safe, they also accepted risk as part of the job and acknowledged that "getting the work done" required some sacrifice. As one miner said, "You couldn't make a dime if you're always going to be safe. You've got to do some dangerous things."

An important aspect of the two studies cited above is the importance attached to controlling one's emotions. Controlling one's fear was perceived to increase actual control because fear was thought to result in less effective problem-oriented coping. That is, increased fear was perceived as interfering with carrying out the job safely. Moreover, in both of these studies, one's own safety depended to a large extent on the performance of others. As reported by Haas (1977), this led to a great emphasis on a strategy of "impression management" whereby fear was contained rather than shared. While nurses in my study also contained their fear, this had less to do with forestalling actual exposure than with preserving their professional self-image. And while nurses' actions may, and indeed did, contribute to others' exposures, nurses as a whole appeared to emphasize individual responsibility in preventing exposure.

In this section, I have discussed how the major theme of this research--achieving a sense of control--ties in with the existing literature. First, I described how sense of control is conceptualized in the general coping literature. Then I focused more specifically on the three major categories of strategies that nurses used to achieve a sense of control: maximizing safety through the use of precautions, minimizing risk through reappraisal, and protective distancing. Finally, I briefly described the significance accorded to the concept of "sense of control" in the occupational risk literature. From this review, it may be concluded that achieving a sense of control over the occurrence of exposure leads to a perception that risk is "manageable". Another important dimension in coping with risk is making risk "meaningful", to be discussed in the next section.

B. APPRAISING RISK AS MEANINGFUL: RISK HAS A HUMAN FACE

Nurses work not only at achieving a sense of control over the occurrence of exposure but also work at imputing a sense of meaning to their work. Finding meaning meant "justifying" their caring for PWAs in the face of attendant risk. In a sense, nurses ask "Why should I care for patients when I am risking my life?" By appraising the event as "worthy of investment", nurses gain a sense of "interpretive control" (Rothbaum et al., 1982) which helps them to accept a potentially aversive event. In coping parlance, nurses alter the significance of the event of caring for PWAs in terms of its meaningfulness rather than in terms of its ability to cause harm. Appraising the event as meaningful motivates them to care for patients in spite of risk. Since considerable energy is devoted to interpretation, and a sense of mastery is associated with the acceptance of risk, gaining a sense of meaning may be viewed as coping to achieve a perception of being in control (Rothbaum et al., 1982). A sense of meaning is derived from the nurses' professional commitment to care in spite of risk and from increased involvement with patients. While self-protection from risk remains an important concern in caring for PWAs, the nurses' professional norms also demand a commitment to the patient. In other words, the risk of contracting HIV is embedded in a pattern of human interaction based on a helping, caring relationship. Adding to the complexity of this issue is the possibility that the commitment to PWAs may be challenged not only by the risk of physical contagion but also by the nurse's perception of the patient himself. In short, the risk to self with which nurses must contend wears a "human face" but often, ironically, a face with which they may have difficulty identifying. In this section, I will relate my findings of nurses' efforts to make risk meaningful to other published research.

1. Meaningfulness in the Context of Coping

Several stress researchers have discussed meaningfulness in terms of its motivational function in sustaining coping efforts. This motivational dimension has been termed variously as incentive (Bandura, 1977), commitment (Lazarus & Folkman, 1984; Kobasa et al., 1981), and meaningfulness (Antonovsky, 1987). Kobasa et al. (1981) see commitment as a belief in the importance, interest, and value of what one is doing. This commitment leads to enthusiastic involvement in one's tasks rather than performing them in an alienated perfunctory manner. Lazarus and Folkman (1984) characterize commitment as an emotional quality that not only guides people into and away from situations but also sustains coping in the face of obstacles. Antonovsky (1987), who has probably developed the concept of meaningfulness most fully, sees this concept as central to his concept of coherence because meaningfulness allows one to view problems as worthy of investment and commitment and motivates individuals to seek ways to understand and make events manageable. He states, "The extent to which one approaches the world with the generalized expectation that stressors are meaningful...lays the motivational...basis for managing and for preventing the transformation of tension into stress" (p. 137). If the sense of meaningfulness is strong, then the individual will have a strong sense of engagement, commitment, and willingness to cope with the stressor. That is, dealing with stress is seen as worthwhile. This conceptualization of meaningfulness was reflected in the nurses' work with PWAs. Antonovsky further argues that the meaningfulness of work is strongly influenced by the social value that is placed on it and the historical-cultural context in which it is embedded. He suggests that a perception that work is culturally valued may provide the energy to bear with its more negative unpleasant aspects. He goes so far as to suggest that the social value of work may be more important in finding work meaningful than even the opportunity for self-expression and autonomy that is so often emphasized by others. Again, this has particular relevance in the present study where nurses must see their work as worthwhile and valuable even though society at large, and even their significant others, may not value the patients for whom they care.

The search for meaning has also been viewed as an adaptive strategy in coping with negative events (Bulman & Wortman, 1977; Taylor, 1983; Frankl, 1963; Thompson, 1981). Frankl even suggests that a search for meaning is a primary human motivation. Rothbaum et al. (1982) argue that attempts to find meaning actually represent an effort at "interpretive control", a form of secondary control that helps people to accept what they cannot change. In the coping literature, the search for meaning is often conceptualized either as a positive reappraisal of an event in terms of benefits accruing from the event or as selective attention to the positive aspects of an undesirable event (Lazarus & Folkman, 1984; Taylor, 1983; Pearlin & Schooler, 1978). Most of these conceptualizations are reappraisals of the outcome of events and, therefore, focus on readjustment to threatening events once they have occurred. In my study, while the threatening event of exposure may have not yet occurred, working in a situation where the potential for harm is ever present is also threatening. In such situations, finding meaning may be appropriately seen as a motivating force to engage in the enterprise (of caring for PWAs) in the midst of threat.

2. Commitment to Patient: The Core of Meaningfulness

In this research, nurses' commitment to patients provided a sense that their work was meaningful. More specifically, the nurses' definitions of the patient determined the kinds of relationships they developed which in turn influenced their perceptions of work. Seeing the patient as a person who needs and deserves care was influential in nurses' finding their work meaningful and worthwhile. For many nurses, this involved coming to terms with the stereotype of homosexuality and the issue of attribution of responsibility. The major process which facilitated this was "getting to know the patient". Getting to know the patient permitted the nurses to perceive the patient as more "like me", thereby negating the metaphor of "patient as other".

While much research on HCW-patient relationships emphasizes the need for "detached concern" (e.g., Coombs & Goldman, 1973; Merton, 1957), the nurses who cared for PWAs initially worked at developing "attachments" to patients. Patients were an initial threat to nurses because of their disease and their "lifestyle". The metaphors associated with AIDS encompass feelings of contagion, death, and sexuality, which quite naturally invite rejection and increase social distance (Peloquin, 1990; Sontag, 1977; Brandt, 1986; Ross, 1988; Herek & Glunt, 1988). These feelings contribute to and readily reinforce the overriding metaphor of "the patient as other". Moreover, while most stigmatized individuals do not pose a threat to the personal self in terms of life or health, PWAs are perceived as posing such a threat to HCWs. The importance of perceived danger to social distancing has received little research attention in the stigma literature (Jones et al., 1984). The research that has been done, however, suggests that the more dangerous the person is perceived to be, the more likely that he or she will be stigmatized. Actual physical threat of life and limb is extremely salient, and contagion has been found to be important in creating social distance (Tringo, 1970; Jones et al., 1984).

Metaphors such as "patient as other" by their very nature work on many levels, conscious and unconscious, explicit and implicit. Metaphors convey feelings that may compromise caring responses because they minimize the value of the patient as a person (Bogdan & Taylor, 1982; Peloquin, 1990; Farmer & Kleinman, 1989; Ross, 1988; Sontag, 1977, 1989). As Peloquin states, "To respond to the person with AIDS as if he or she were dead, a sinner, a criminal, an enemy, or an outcast because of the disease is to risk diminishing his or her personal status...to cling to these [metaphors] is to further risk depriving him or her of compassion" (p. 275). She challenges HCWs to consider how their responses to PWAs are shaped by the meanings assigned to AIDS through the use of metaphors. A primary task of the nurse is to "strip the patient of metaphor" and accept the patient as a "person" if a compassionate response is to be forthcoming. Meisenhelder and LaCharite (1989) allege that the more the nurse can identify with the afflicted the less important will be the symbolic meanings attached to the disease. Stevens & Muskin (1987) also assert that viewing patients as different may prevent one from identifying with them or from feeling empathic or compassionate because "empathy relies upon the ability to find some similarity between ourselves and the rest of the world" (p. 545). While empathy is not the only source of altruistic behavior, a body of literature suggests that empathy is a significant motivator for altruism (Aronfreed, 1968; Shott, 1979; Coke et al., 1978).

Although seeing the patient as an "outsider" may be harmful because it negates the development of accepting relationships, several theorists have described how this perception may act as a protective mechanism that decreases perceived vulnerability. Because it serves a protective function, it may be more difficult to eradicate. The social psychological literature on attribution suggests that people make attributions, in part, to enhance their control over their environment (Lerner, 1980; Walster, 1966). To maintain a belief that they can control their own fate, nonvictims may view victims as different in the sense that they are deserving of their fate. Perceiving others as different may preserve a belief in a "just world" (Lerner, 1980) in which "gays deserve what they get and get what they deserve". On the other hand, if victimization is seen to be random and not attributed to the victim's differentness, then the nonvictim could also be seen to be at risk (Taylor et al., 1983).

3. Attribution of Responsibility

As alluded to above, an important aspect contributing to social distance is attribution of responsibility. The existing literature on the role of attribution of responsibility on social distancing is equivocal. Some (e.g., Parsons, 1951; Friedson, 1971; Haber & Smith, 1971) suggest that less stigmatization and consequent distancing occurs with ascribed versus achieved deviance. Deviance for which the individual is not held responsible is perceived to elicit less stigma than those conditions in which the individual "earned" his deviant status. Others (e.g., Albrecht et al., 1982; Goffman, 1963; Davis, 1961; Higgins, 1980) ascribe to the theory that ambiguity in social interaction rather than attribution of responsibility is the critical variable explaining social distance. Albrecht et al. (1982), in an attempt to unravel the importance of these two competing theories, found that the perceived disruption to social interaction rather than attribution of responsibility appeared to provide the better explanation for differentiated social distancing. However, their research did not address the issue of contagion nor did it include conditions that were physically disabling and at the same time socially deviant. Furthermore, this research was based on hypothetical scenarios rather than actual social interactions and therefore excluded such factors as personality characteristics and role performances of the stigmatized that may influence interaction between stigmatized individuals and normals. The study found that ambiguity in social interaction was the most frequently cited reason for distancing from those who were physically disabled and from those who were socially deviant. However, a considerable number of respondents suggested that rejection of the socially deviant also may be influenced by perceived *threats to physical well-being, and the moral weakness of the individual* (an indirect measure of responsibility). Moreover, this research suggests that the degree of rejection increased as perceived threats to well-being and perceptions of the stigmatized as being "morally weak" were added to the perceived ambiguity of the interaction. In short, factors seem to be additive, and as the perceived cost of engaging in interaction increased, the social distance increased. That both attribution of responsibility and ambiguity of social interaction may be important is also implied in Scambler's (1984) position that stigmatizing conditions disrupt the social order by falling short of cultural norms about what one should be (ontological deficiency) and, secondly, by violating norms governing routine social interaction. Ontological deficiency does not necessarily include the element of culpability but may often be accompanied by connotations of moral failure.

In my study, social distancing could be attributed to both disruption of social interaction and attribution of responsibility. Many nurses recounted their initial uncomfortablenesss in interacting with gay patients. For some, however, attribution of responsibility also influenced social distancing. Those nurses who did not "accept" patients saw the patients' behavior as blameworthy. However, absolving PWAs of responsibility for their illness was not essential to seeing and accepting them as persons. Indeed, this issue appears to be complex in that the importance of attribution of responsibility may vary over situations and over time. Moreover, there are different dimensions of responsibility, including responsibility for being gay, responsibility for acquiring HIV infection and AIDS, and responsibility for preventing HIV transmission. Whether attribution of responsibility contributed to social distancing seemed to be dependent on the nurse's ability to separate PWAs' past behaviors (in terms of acquiring HIV infection and AIDS) from their present needs. Furthermore, attribution appears to involve much more than imputed cause. In my study, perception of responsibility may interact with the meaning it has for HCWs. That is, attribution of responsibility may take on a different meaning for nurses because they themselves are at risk for acquiring a fatal and socially stigmatizing disease from someone perceived to be socially deviant and contagious. If nurses do not approve of the patient's "lifestyle" and, moreover, view patients as responsible for their high-risk behaviors, then any risk incurred by the nurse may be perceived as "too great".

Heider's (1958) theory of attribution of moral responsibility provides some interpretation of the variation in the nurses' assigning of responsibility. He suggests that judgment of responsibility can be distinguished from judgments of causality. Individuals may or may not be assigned responsibilities for outcomes they may have caused. On the other hand, they may be seen as responsible for outcomes they did not cause. Nurses attributed responsibility at several levels, according to Heider's formulation, and this appeared to be related to level of threat. Responsibility through association (in which individuals are held responsible for any action connected with them however remote) seemed to be assigned when the level of threat was greatest such as when nurses became exposed. Those nurses who felt most at risk displayed this type of attribution. For example, one nurse assigned responsibility to all homosexuals for her exposure to HIV. Another felt that the patients' past irresponsible lifestyle now threatened her with risk. There is some evidence that such generalized primitive attributions help one to maintain a belief in a just world (Ross & Fletcher, 1985). There is also some evidence that the greater the level of threat, the more likely that blame will be placed on others than on oneself (Miller & Porter, 1983). This supports this study's finding that those nurses who have been exposed may turn to blaming the patient for subjecting them to risk. In Heider's second level, responsibility by commission, individuals are held responsible for anything that they are perceived to have caused, even if the event caused could not be foreseen or was not intended. Some nurses, for example, held patients responsible for their disease even though they acknowledged the patient may not have known the consequences of his behavior. As one nurse states, "what you sow, you reap" and "you pay the consequences". Most nurses, however, see responsibility at Heider's level of "intention", in which responsibility is assigned only for the consequences of actions individuals intend to produce. Most nurses do not hold patients responsible for their illness because they perceive that the patient could not foresee that his behavior would lead to AIDS nor are most patients viewed as intending to "spread" their infection to others. However, it appeared that when the threat was greatest, nurses may revert back to a more "primitive" attribution of responsibility. Perhaps the motivation to believe in a predictable controllable world is more likely to affect a person's attribution of causality when that person is confronted with an outcome that is personally threatening (Wortman, 1976; Chaiken & Darley, 1973).

The above discussion suggests that attribution of responsibility to the patient for his illness may lead to feelings of nonacceptance. However, it may also be the case that initial feelings of nonacceptance may lead to attribution of responsibility. Attribution theory proposes that an observer will assign personal responsibility to another's behavior only if it is perceived as originating in his or her personal dispositions. Pettigrew (1979) has pointed out that people generally tend to attribute negative behaviors in disliked groups to their internal dispositions. This suggests that a dislike for homosexuals may result in holding PWAs responsible for their illness or their high-risk behaviors. Again, this will allow observers to control their own feelings of vulnerability because if attributions are internal (rather than assigned to situational variables) then one sees the threatening situation as nonrandom and therefore "controllable".

Finally, when addressing the issue of attribution of responsibility, it is important to consider the social context and values of both the professional culture and the broader society. More specifically, individual responsibility for health is an important social value. Much of the health promotion and illness prevention discourse of the past decade has focused on the importance of healthy lifestyles in the attainment of health. Individual responsibility is even more evident when diseases are linked to "high-risk" individual behavior (Bosk & Frader, 1990). The view of health behavior as being free from the influence of external forces is a "naive, simplistic view of human nature" which nevertheless pervades much of our thinking (Brandt, 1986, p. 240). As one nurse indicated, individual lifestyle behaviour has almost become synonymous with preventable behavior even though behaviors such as drug abuse and sexual practices are recognized as extremely complex and influenced by a myriad of social and individual factors. Nevertheless, such beliefs are part of the social consciousness of those caring for PWAs. In this regard, Kopelman (1988) alleges that the "punishment concept of disease" is universal even though its form may change over time. Nelkin and Gilman (1988) also contend that the attention to individual responsibility for disease as reflected in the lifestyle emphasis on health is but a transformation of the concepts of morality and blame. They suggest that attributing disease to lifestyle has popular appeal because it appears to enhance individual control over disease. These authors argue that locating blame is "a quest for order and certainty in an anxious and disruptive situation" (p. 363) and is most evident when science and medicine have failed to serve as a source of definitive understanding and control. They maintain that blaming has always been a means to make mysterious and devastating diseases comprehensible and therefore possibly controllable.

4. Developing "Accepting" Relationships

Although there is much research on how stigmatized individuals cope with their stigma, less attention has been directed to ascertaining how normals come to accept those who are different from themselves. The concept of "courtesy stigma" (Goffman, 1963) may be seen as an early example of how normals are influenced by the stigmatized. Davis' (1961) work also incorporated the feelings and behaviors of normals in the deviant's "disavowal". The focus, however, remained on the deviant. More recently, Jones et al. (1984) have incorporated the perspective of both "markers" and "markable" individuals in their work on stigma. Perhaps the most significant empirical work in this area is that of Bogdan and Taylor (1987; 1989). Their qualitative studies on the development of accepting relationships between nondisabled persons and the severely disabled is a beginning database for a "sociology of acceptance" (Bogdan & Taylor, 1987). These authors argue that acceptance of those "different" from the norm has become increasingly important in light of the recent trend toward integration in educational institutions and in society as a whole.

The process and strategies nurses used to develop accepting relationships with patients bear a marked similarity to Bogdan and Taylor's (1987) conceptualization of the "acceptance" process. For Bogdan and Taylor (1987), accepting relationships are based not on a denial of difference but rather on the "absence of impugning the different person's moral character because of the variation" (p. 35). Their research focuses on the development of long-standing relationships with the severely disabled and, therefore, addresses ascribed rather than achieved status. This distinction is of particular importance when comparing their work with mine because nurses initially may perceive individuals as "responsible" for their "status" (i.e., achieved status). With this difference in mind, I would like to relate my conclusions to the findings of these researchers to demonstrate how the present research both supports and extends their conceptualizations.

Bogdan and Taylor outline four major orientations to accepting relationships based on the sentiments expressed by the typical person toward the partner with the deviant attribute. These sentiments may appeal to family values, religious commitments, humanitarian (service or professional) commitments, or friendship orientations. Moreover, most relationships contain a combination of sentiments and a complex mixture of orientations. Furthermore, relationships may start out as being primarily one type and then move to another. This was certainly borne out by my study. Nurses' commitments to patients often started out as a professional commitment and then evolved into a friendship. Certainly, nurses spoke of patients not only in terms of "abstract appeal to values that transcend the relationship" (i.e., professional commitment) but also in "concrete terms of liking the person" (Bogdan & Taylor, 1987, p. 37). For some, the relationships assumed a sentiment based on family values ("I saw him like a little brother"). Two nurses also drew on religious sentiments in their motivation to accept patients as persons.

Bogdan and Taylor (1987) found that in the process of accepting the disabled the disability gradually becomes less salient and the disabled become "delabelled". While stereotypes dominate in initial encounters, increased contact results in the typical person feeling more at ease in the presence of the person who is different. These authors point out the importance of seeing similarity, in spite of differences, and suggest that the definition of humanness is socially constructed as the nondisabled come to "see" attributes in the disabled that convey to them that they are "like me" (Bogdan & Taylor, 1989). Perceiving similarities enables one to establish ties to another, to recognize common concerns that one shares with others, and to recognize a unity of purpose and being (Higgins, 1980, p. 176). Moreover, as relationships develop, more trust is established and the comfort level rises. The "typical" person who shares such a relationship begins to understand the meaning of the disability in the other's life. This was clearly illustrated in the nurses caring for PWAs. They described how "getting to know the patient" helped them not only to see the patient as "normal" but also to better understand what the patient's homosexuality and disease meant to him and to appreciate the problems that the patient's disease and lifestyle presented for him and his family. According to Bogdan & Taylor, the typical person empathizes with the discrimination and rejection disabled persons have experienced and comes to share their contempt for outsiders who reveal by their actions or remarks that they are uncomfortable with the disabled. Again, this was clearly shown by those nurses who criticized those who revealed a lack of sensitivity by "overdressing", and was perhaps most noticeable in nurses' efforts to convince others (including their families) of the value of their work. All nurses discussed in very poignant terms the discrimination their patients experience at the hands of others.

Seeing patients as persons also involves "defining a social place" for them (Bogdan & Taylor, 1989). When disabled persons are gone, other members may talk about how they are missed and how things are different without them. That is, the person's absence is felt. In my study, an indication that patients become "one of us" was reflected in the loss felt when patients die. Many nurses pointed out that one of the most difficult aspects of caring for PWAs are the feelings they experience when patients die. The meaningfulness of the nurse-patient relationship was demonstrated by nurses' attending patients' funerals and by their reminiscing about the times they shared with patients. Several nurses commented that you can "feel it" on the ward when a patient dies.

In addition to exemplifying the above manifestations of accepting relationships, my study revealed specific strategies that may have helped nurses to cope with their feelings about the patients' lifestyles. These strategies were related to managing those aspects of the patients' behavior that were "unacceptable". Bogdan and Taylor do not discuss situations where individuals have "achieved" (versus "ascribed") deviance, and therefore the issue of responsibility and moral judgment is presumably less significant. However, it is this aspect of social deviance that may be the most difficult to "accept", as borne out by the nurses' accounts of their own feelings and the attitudes of their families and friends. The literature on public and HCWs' attitudes to PWAs attests to the significance of the issue of social deviance in acceptance of PWAs.

Bogdan and Taylor (1987) delineate conditions that foster the development of caring relationships. Again, there are many similarities to my study. They suggest that regular and positive contacts foster caring relationships. This is supported by a body of social psychological theory that suggests that repeated exposures to others leads to increasingly favorable attitudes towards them (Zajonc, 1968). Moreover, it has been found that positive relationships develop to the extent that individuals demonstrate reciprocity with respect to positive evaluations of each other (Byrne, 1971). Reciprocity was an important element in Bogdan and Taylor's (1989) research. Reciprocity permitted individuals to perceive benefits to the relationship. Part of this reciprocity was linked to "enjoying" the person. Most normals derived pleasure from their relationships with the disabled because they liked the disabled persons and enjoyed being with them. In my study, nurses became more accepting as they continued to care for patients. Nurses pointed out many positive aspects of their relationships with PWAs. Reciprocity figured prominently in these relationships. For example, several nurses remarked that the patients' personalities, particularly their warmth and their expressiveness, played a major part in establishing satisfying relationships. In contrast, nurses' relationships with IV drug users were perceived as "less positive" because these patients were more difficult to get to know and were less likely to share their feelings and experiences. Another important element of the caring relationship was the gratitude that nurses received from the patients and their families which permitted them to see their work as worthwhile. The nurses' concern for PWAs was also reciprocated by the patients' concern for the nurses' safety in terms of following precautions. Such reciprocity provided nurses with instrumental, emotional, and appraisal support (House, 1981). The perception of the patient as an important source of support has received little research attention in the literature. Although others have acknowledged that patients provide nurses with a source of work satisfaction (e.g., Marshall, 1980; Bailey et al., 1980), the social support literature tends to overlook the client as a source of support.

Bogdan and Taylor (1989) also note that those who come to intimately know the disabled experience feelings of "being special" because they receive a sense of accomplishment by contributing to the well-being and growth of others. In a professional setting, one would expect this same feeling, and indeed nurses did talk about deriving satisfaction from contributing to the patients' progress or more importantly to their physical and emotional comfort for which their patients express gratitude. Further, in my study, several nurses commented on what they perceived to be their "special" ability to "care about" PWAs which enhances their self-esteem and makes their work worthwhile.

A further condition for the development of accepting relationships identified by Bogdan and Taylor (1987) is the presence of norms of acceptance and respect for individual differences in the social context in which relationships develop. In my study, professional norms provided nurses with a "broad motivation" (Rachman, 1978) to accept all patients. As well, the social context of the unit was influential in modelling accepting relationships. Indeed, it may be said that professional norms require that nurses be accepting. While such norms undoubtedly facilitate the development of accepting relationships, formalized professional expectations clearly are not sufficient and may even be in conflict with the nurses own "lay" culture. Perhaps an additional facilitative condition for developing accepting relationships may be the opportunity for nurses to explore and discuss their feelings about the differences they perceive in others. In a professional context where accepting relationships are essential to role performance, such dialogue would appear to be helpful. However, as borne out by my study, talking about difficulties accepting patients may be particularly troublesome for nurses because they perceive that they should be accepting. To admit otherwise may be perceived as "nonprofessional".

The conceptualization of Bogdan and Taylor (1987) emphasizes that accepting relationships are dependent on a "person to person" relationship. How does this differ from a "professional" relationship? One may be tempted to ask whether a "person to person" relationship is even relevant in the professional context. On the other hand, some may assume that nurses accept patients as persons by virtue of their professional commitment. However, the literature on HCWs caring for PWAs and also this study suggest otherwise. The nursing literature emphasizes that "seeing the patient as a person" is the cornerstone of a "caring" relationship. Indeed, "caring" has emerged as an important concept in recent theoretical conceptualizations of nursing (e.g., Leininger, 1984; Watson, 1985). Seeing patients as unique individuals is considered necessary for caring, and caring has become part of the nurse's professional identity (Kahn & Steeves, 1988). Moreover, seeing patients as unique individuals and the involvement this entails leads to work satisfaction. This has been particularly emphasized by those nurses addressing the care of PWAs (Govoni, 1988; Brennan, 1988; Flaskerud, 1987; Fox et al., 1990; Lessor & Jurich, 1986). Of particular interest to the present discussion is Kahn & Steeves' (1988) work which demonstrates that the meaning of caring from the perspective of the staff nurse may be different from the theoretical writings on caring. More specifically, they emphasize the reciprocal nature of the nurse-patient relationship and its influence on work satisfaction which was also a relationship reflected in my study.

In Kahn and Steeves' phenomenological study on the meaning of caring, "liking as a basis of caring" emerged as an important theme. Caring was characterized by "fitting with" or "clicking" with someone and was evaluated in terms of liking someone. Further, the greatest degree of affection for patients had a temporal and a reciprocal quality: "The patients I enjoy are the ones I can work with for a certain period of time and then we become better friends" (p. 206). Furthermore, patients' affection for nurses was an important element in caring because of the recognition it provided for nurses. These authors summarize this theme as representing the intrusion of the "person" into the "nurse", in that the nurse responds not as a clinician but as a "person" to the "person" of the patient. The relationship had a characteristic trajectory. If the nurse and patient "fit" together then a "liking" developed. Over time, liking relationships led to a friendship that extended beyond the professional role.

Also of considerable interest are the conditions that Kahn and Steeves found to be associated with the development of caring relationships. Again, these are similar to those identified in the present study and represent both patient and environmental factors. Caring was elicited when patients were in great need (seriously ill), had multiple psychosocial problems, were dependent, were alert and personable, and in those situations where nurses had time to develop relationships. In contrast, caring was constrained by time and the nurses' personal limitations. The development of caring relationships was also deterred by the patients' unwillingness to communicate, by patients' poor self-images, and by patients' actions that were perceived as causing problems. In contrast to my own study, the nurses' own feelings of having something to contribute did not emerge as an important aspect of developing relationships. Value conflicts such as those encountered by nurses who care for PWAs were also not addressed.

In sum, Kahn and Steeves' (1988) study suggests that both patient and situation factors influence the development of caring relationships. Moreover, it is those factors which facilitate nurses' actions in caring for patients that influence these relationships. I would add that the development of caring relationships also may be facilitated when nurses have the values, attitudes and resources to carry out that which they see as part of their nursing role. This, in turn, contributes to work satisfaction. Of some import is the finding in Kahn and Steeves' study and in my own study that patients figure prominently in nurses' work satisfaction, partly because the patients are partners in the development of relationships that are rewarding and enjoyable. These findings, however, may be a cause for concern. The "intrusion of human nature" (e.g., liking) may be incompatible with the concept of "unconditional acceptance". The human quality of setting apart patients who are liked versus those that are not conflicts with nursing's ideological stance that nurses care for all patients unconditionally (Kahn & Steeves, 1988). The professional socialization of nurses places the responsibility for the caring relationship on the nurse, yet these studies suggest that there are reciprocal aspects to the caring encounter.

The element of reciprocity may be of particular significance when considering the relationships that nurses will be establishing with AIDS patients who are IV drug users. As has been pointed out by many others, and supported by this study, such patients do not always possess those patient characteristics found to evoke caring responses. While there has been considerable focus on HCWs caring for homosexual patients, nurses' relationships with IV drug users may pose particular problems for a variety of reasons. First, IV drug users may be perceived as posing a greater "actual" threat in terms of exposure to HIV. Nurses perceived these patients as being more irresponsible in containing the threat of AIDS because of their unpredictable behavior. Furthermore, they are not perceived as "looking out for" the nurses in terms of preventing exposure. Second, they are more "dissimilar" to nurses. Not only are IV drug users objectively dissimilar in terms of sociocultural factors but also their personality characteristics may make it more difficult to "get to know them" and their families. In my study, getting to know the patient was facilitative in perceiving similarity. Third, IV drug users may not provide nurses with the validation that their work is valued and worthwhile; therefore, nurses may not derive the same satisfaction in caring for them. Finally, IV drug users' personality characteristics may prevent nurses from carrying out those aspects of their role that they find most satisfying, namely, that of providing emotional as well as physical care. This may lead to feelings of inadequacy as a professional caregiver. Clearly, nurses' relationships with AIDS patients who are IV drug users requires further study.

In sum, nurses' professional norms admonish them to accept all patients. Nurses' work with PWAs requires an empathic, accepting approach. While the professional literature discusses the development of the nurse-patient relationship in terms of its relevance to the concept of caring, this work is in its infancy. Research that explores how nurses develop "accepting" relationships with those who are perceived as "different" from themselves would add to our knowledge of accepting relationships in general and would assist nurses who care for PWAs.

5. Meaningfulness in the Occupational Risk Literature

Objective risk assessments do not incorporate the benefits that may be derived from engaging in activities characterized by risk. However, people's subjective assessments of risk (or risk acceptability) do take into account the benefits to be derived from engaging in risky activities, that is, whether the risk is worth taking. Research suggests that risk may be more acceptable when it is perceived that benefits will be accrued from engaging in "risky" activities (Hale, 1987; Otway & von Winterfeldt, 1981; Nelkin & Brown, 1984; Slovic et al., 1980). "Benefits" can of course include both monetary returns and more intangible rewards. Finding work meaningful, however, usually entails the intrinsic rewards offered by the work situation itself. Researchers who have studied high-risk occupations have found that the meaningfulness of work motivates individuals to accept risk. For example, Nelkin and Brown (1984) found that perception of risk depended less on the nature of work than on the extent to which workers identified with the value of work. Professionals faced with high risks (e.g., firemen) saw their work as being intrinsically valuable which made risk taking worthwhile. While risk was always in the back of their minds, the satisfaction of the work itself was rewarding enough to motivate them to work in spite of risk. In addition to the personal self-gratification of the job, some, like the nurses caring for PWAs, appealed to the belief that they were performing a "worthwhile service" and had something to contribute. Mayer and Rosenblatt (1975) found that the meaning social workers attributed to their relationships with clients provided part of the motivation to work in a dangerous ghetto. Rewards from clients (i.e., the belief that the worker was being helpful and appreciated) along with the recognition that the clients need care motivated social workers to work in the face of attendant risks. Social workers also felt obliged to help even if they did not find the work personally gratifying. In other words, because clients were perceived as requiring care, a professional commitment to help was a motivating factor. This suggests that risk acceptability for professionals may include more than a balancing of risks and benefits.

The "meaningfulness" of work in an atmosphere of danger has received considerable attention in police work. Some suggest that the dangerous aspects of work are overridden by the meaningfulness police work provides in terms of its overall ends, namely, the ability to help others directly and to perserve law and order in the community at large (Kroes et al., 1974; Alkus & Padesky, 1983). While it may be true that police "dislike" danger in some ways, Jermier et al. (1989) cite researchers who contend that danger itself may provide a source of occupational gratification because "danger-filled episodes infuse an otherwise monotonous and mundane job with excitement, exhilaration, and meaningfulness" (p. 20). Jermier et al.'s research revealed that the more dangerous work assignments were viewed as more meaningful and motivating. They suggest that this may be due to the opportunity these assignments provide to use highly-valued, crime-fighting skills when delivering critical services to the community. Dangerous work may appeal to a sense of duty and therefore may be judged more meaningful even though it is not necessarily perceived as enjoyable. Davidson and Veno (1980) also found that some "tense" work situations were evaluated positively which suggests that high anxiety may not be incongruous with positive feelings. Finally, Skolnick (1986) suggests that policemen even may enjoy the possibility of danger, especially its associated excitement, even though they may at the same time be fearful of it. He too found that confining and routine (but safe) assignments were rated lower in the hierarchy of job preferences than were more dangerous assignments. In short, it appears that the variable of "danger" may be confounded by other factors and that the meaningfulness of work may be related to a number of variables which are associated with danger.

6. Relationship Between "Meaningfulness" and "Manageability" of Risk

Over time, most nurses increased their sense of control over exposure and also increased their commitment to the patient. They displayed confidence in their ability to protect themselves and are motivated to care. While most nurses still admit to a "healthy fear" or at least an "awareness" of their vincibility, most appeared to be "comfortable with the risk". In contrast, those nurses who expressed the greatest discomfort with risk also had more negative feelings about the patients for whom they cared. Although in such a small sample it is difficult to make convincing arguments, there is some evidence to suggest that a relationship exists between the meaningfulness of risk and its perceived manageability. While these data cannot determine directionality, they suggest that the influence may be bidirectional.

That feelings of control may influence the meaningfulness of work is suggested in those situations where nurses became exposed. In one instance, it will be recalled, the nurse's exposure resulted in a more negative evaluation of homosexuals. In another situation, a nurse who had a very positive perception of homosexuals prior to becoming exposed found that after exposure she too began to question the value of her work and to focus on the patients' "irresponsible" behavior. In these instances, a decreased sense of control accompanied by fear may result in a reappraisal of the meaningfulness of one's work, particularly when that loss of control may have fatal consequences. At such times, nurses may increase their commitment to themselves and decrease their investment to the patient. Moreover, it may be easier to avoid this commitment if one can justify avoidance. Derogating the patient may be one way to absolve oneself of the guilt occasioned by avoidance. In this situation, derogating the patient may take the form of attributing to the patient responsibility for "my risk or exposure". Moreover, such an attribution may be facilitated by the "ready-made" social attitude toward patients by society in general and even by the nurses' families. In contrast to those situations where there may be no "clear-cut" evidence that the patient's behavior led to his disease, in the case of PWAs the issue of responsibility may be more "conceivable". Nurses may perceive the victim's behavior as the "ultimate" cause of the event (even though this attribution is admittedly a primitive one of association).

The above interpretation is consistent with the general social psychological literature on attribution and the "just world" hypothesis by Lerner and his associates (Lerner, 1980) and has been applied to a variety of substantive areas, particularly that of stigma and victimization (e.g., Jones et al., 1984; Wortman & Dunkel-Schetter, 1979; Janoff-Bulman & Frieze, 1983). The AIDS literature also suggests that if PWAs are seen as less valuable, then avoidance may be easier (Arras, 1988; Meisenhelder & LaCharite, 1989). There is no literature which suggests that HIV exposures may be followed by a differential appraisal of the patient. However, Wiley et al. (1990) found that nurses who had been exposed exhibited more avoidance behavior in terms of wanting to leave the specialty area or nursing itself and also favored the right to refuse to care for patients.

In addition to the evidence that meaningfulness may influence risk acceptability by providing motivation to care, meaningfulness also may contribute to a sense of control over risk itself. This interrelationship may be brought about through the concept of "salience". More specifically, relating to patients in the involved manner that results from accepting them as persons may decrease the salience of risk by reducing its intrusiveness. Although "you never forget", finding work meaningful and worthy of engagement may be absorbing enough to decrease risk saliency, thereby increasing a sense of control. Lessor and Jurich (1986) suggest that the social closeness and increased involvement with patients demanded by AIDS work may mitigate against a preoccupation with risk. In their study, increased risk saliency was perceived to interfere with carrying out the essence of AIDS care, namely, "sentimental work". In a similar vein, Rachman (1978) suggests that a feeling of "required helpfulness" may actually decrease fear by providing "distraction" that may diminish the impact of the feared event. Concentrating on useful activities may be helpful in reducing fear. Moreover, he suggests that work activities that are perceived to be part of one's responsibility to others may be particularly valuable in reducing fear. Additionally, the intensity of care involved in nursing PWAs may render fear of contagion secondary to the tasks at hand. In this regard, Schaffner (1986, p. 72) quotes a fellow physician, "I think my overcoming my fear was coincidental with reaching out more to my patients, in trying to help them die in dignity".

That there may be a relationship between meaningfulness and manageability is also inferred from the nurses' comments about their families' perceptions of risk. Nurses perceived a relationship between their families' acceptance of the patients (i.e., the "meaningfulness" of the nurses' work) and their concern about contagion (i.e., the "manageability" of risk). Nurses suggest that their families' uncomfortableness with nurses' caring for PWAs may relate, in part, to their families' inability to accept the patients for whom they care.

In the more general area of coping, Antonovsky (1987) states, "If one does not perceive that one can manage (either because of decreased resources or understanding) meaningfulness will be lessened and coping efforts weakened" (p. 22). Similarly, Lazarus and Folkman (1984) convey the relationship between a sense of control and commitment through their comments that "efficacy expectancies" affect the motivation to persist in the face of aversive stimuli.

In sum, this study provides preliminary evidence that there is a relationship between meaningfulness and manageability of risk. In all likelihood this relationship may be one of reciprocal influence. Those who feel that risk is manageable, also find it meaningful and those that feel that the risk is meaningful and worthwhile tend to feel that the risk is manageable. One nurse's comments succinctly convey the importance of both of these factors, "I take precautions. I care. Patients need care. It's my choice". These statements convey a sense of control over exposure and a meaningful commitment to the patient. Thus far, this discussion has emphasized how nurses work at making risk manageable and meaningful. The next section focuses on the conflict that arises when the nurse's personal feelings of the manageability and meaningfulness of risk are discrepant with perceived professional expectations.

C. THE "PROFESSIONAL" NURSE: NURSES ARE "HUMAN"

This study finds that stress is produced by the dissonance created by a discrepancy between professional expectations and personal feelings. Nurses who care for PWAs are beset by a variety of emotions. Some of these emotions are perceived to be inappropriate for a "professional" caretaker. The two major inappropriate emotions that were displayed by nurses were fear and nonacceptance of PWAs. Nurses perceived that they should not be afraid and that they should not be judgmental. Part of this feeling appeared to derive from their professional socialization that nurses care for all patients regardless of risk. Caring is essential to the identity of the nurse; being empathic and treating patients as unique individuals are characteristics of caring. Moreover, nurses' experiences of fear despite their awareness of the scientific evidence that they were at "minimal" risk gave rise to derivative emotions of guilt and shame which threatened their self-esteem. In short, nurses cope with threats to not only their physical selves but also to their professional identities. To preserve their self-esteem as professional caregivers, nurses used a variety of strategies. The findings of this study tie in with the literature on the "sociology of emotions" as first described by Hochschild (1979) and later by Thoits (1985). In this section, I will discuss the study findings as they relate to this literature.

A major thesis of the work on the sociology of emotions is that to some extent emotions are social products, socially constructed and learned (Thoits, 1985; Hochschild, 1979, 1983). "Emotional behaviors", like actions, are governed by a set of expectations or beliefs (Hochschild, 1979). More specifically, Hochschild argues that "emotion norms" or "feeling rules" indicate the range, intensity, and duration of feelings that are appropriate to given situations and that "emotion expression rules" govern the display of these emotions. Although such rules may not be codified formally, they are learned and reinforced in social interaction. In the same vein, but focusing on the specific emotion of fear, Scruton (1986) argues that while the study of fear and other emotions has often been assigned to the psychological sciences, human fears are most efficiently understood as social phenomena. He states: "Fear is an event that takes place in a social setting; it is performed by social animals whose lives and experiences are dominated by culture" (p. 9). In the present study, nurses' professional culture gave rise to "feeling rules" and "expression rules". Nurses initially felt that they should be unafraid and accepting. Although the proscription against being afraid is not "codified", nurses nevertheless perceive this as a norm. These feeling rules were reinforced by the social context of the unit (that is, they were maintained by social interaction). The norms relating to the expression of feeling were also maintained by interaction with others. The most common example of such a norm was the proscription that fear should not be conveyed to the patient. Furthermore, some nurses' expectations that they should not be afraid prevented them from "expressing" their fear to others. Moreover, there did not appear to be a context that encouraged expression of feelings.

Awareness of the discrepancy between private feelings and feelings prescribed by emotion norms gives rise to what Thoits (1985) has termed "norm-state discrepancy" which engenders a state of anticipated social disapproval. Anticipated social disapproval is not always dependent on the actual reaction of others. A crucial symbolic interactionism insight is that social control is largely a product of self-control (Shott, 1979). That is, role-taking abilities enable people to view themselves from the imagined perspective of others which can give rise to the "role-taking" emotions of guilt, shame, or embarrassment (Shott, 1979). In other words, individuals may "self-label" themselves as deviant in terms of the emotions they feel (Thoits, 1985). A state of anticipated social disapproval motivates the individual to conform to social expectations by engaging in "emotion work". Emotion work, as defined by Hochschild (1979), involves trying to produce the appropriate feeling. It entails bringing one's own feelings in line with social expectations. This emotion management perspective differs from Goffman's (1959) dramaturgical analysis in which individuals try to *appear* to feel differently. Goffman posits one sort of acting, the direct management of behavioral expression, in which actors actively manage outer impressions while they do not actively manage inner feelings. Hochschild, on the other hand, suggests that individuals also work at changing their inner feelings. In this study, nurses used both types of strategies--appearing to feel differently and changing their inner feelings--in their efforts to maintain their professional self-esteem. These two types of strategies have been incorporated in Schlenker's (1987) identity theory. According to this author, people strive to construct and maintain desired identity images. These images represent what people believe they both should be and can be on particular occasions. Self-identification is the process, means, or result of showing oneself to be a particular person. It is accomplished privately through contemplation of oneself and publicly through self-disclosure, self-presentation, and other activities that symbolically communicate one's identity to others (Schlenker, 1987, p. 277). In the present study, nurses worked to present a favourable image of themselves to themselves as well as to others, including patients, coworkers, and families and friends.

One may well ask then, what are the sources of discrepant feelings? If the nurse is a "well-socialized" actor in the professional culture, why do discrepant feelings exist? Thoits (1985), in an expansion of Hochschild's work, suggests several sources of discrepant feelings that relate to the present study. Thoits suggests that discrepant feelings may result when one occupies multiple roles and possesses multiple identities which can occur when one is socialized into two or more different cultures. Although Thoits (1985) discusses this in terms of different sociocultural contexts, I propose that it could apply equally well to the nurses' membership in both a "lay" culture and a "professional" culture. Such "bicultural" socialization may be seen as an important, if not the underlying, source of nurses' discrepant feelings. The discrepancy between the professional and lay culture is reflected in the concept of "social construction of risk". Of particular interest here is the importance of the social meanings attached to AIDS as defined from the lay point of view. These social meanings go beyond statistical risk probabilities that the professional culture advocates. In this context, it is useful to look at those factors that may give rise to nurses' personal feelings of fear.

As discussed throughout this thesis, many researchers have focused on the symbolic meaning of AIDS in order to understand the fear of contagion. These authors emphasize that AIDS has come to symbolize death, mystery (uncertainty), punishment, and sexuality (Meisenhelder and LaCharite, 1989; Sontag, 1977, 1989; Eisenberg, 1986; Conrad, 1986; Brandt, 1986). AIDS symbolizes death and uncertainty, both of which are contrary to the norms of Western culture, which tend to deny death and to emphasize mastery over the environment. Such social meanings are reflective of the anxiety and tension in society as a whole (to which HCWs are not immune) and give rise to a "nonepidemiological" perception of risk that has little to do, for example, with the actual probability of occupational exposure (Cooke, 1990).

Nurses' increased vulnerability to the symbolic meanings of AIDS may be accentuated by the social context in which AIDS has appeared. While it is true that the nursing profession grew out of caring for persons with infectious diseases that were often devastating, poorly understood, and rarely manageable with the nurses' limited knowledge of infection control measures (Reisman, 1988; Govoni, 1988), recent scientific advancements in science and medicine have in most circumstances diminished to minute proportions the personal risk incurred by nurses. Therefore, nurses and other HCWs have grown accustomed to minimal personal risk from fatal diseases (Bosk & Frader, 1990). Moreover, patterns of mortality and morbidity reinforced the sense of invulnerability to death with the major deaths resulting from chronic diseases among the older population. Health care workers therefore were able to deny their vulnerability to death. AIDS has shattered this perception of invulnerability.

The increased fear of and attention to the risk of AIDS also may be rooted in society's attitude to risk in general. Several authors maintain that society as a whole has become more "risk aversive" (Nelkin et al., 1990; Bosk & Frader, 1990; Fairlie, 1989; Douglas & Wildavsky, 1982; Sontag, 1989). Risks to health are a priority on the public agenda. Nelkin et al. (1990) state, "We are preoccupied with health...we are bombarded with data about risks...toxic substances, pesticides, food additives...We have lost trust in authority...to protect our health (p. 4). Such attention to risk is part of the social consciousness of society as a whole. For HCWs, this general social consciousness may counter the professional obligation to care for patients in the face of risk.

In addition to the symbolic meanings that relate to physical contagion, nurses must also deal with the meanings attached to AIDS in terms of the lifestyles of those most commonly afflicted with the disease. Nurses' feelings toward homosexuality and IV drug use reflect their personal "moral" socialization and upbringing. Religious values may conflict with the perceived feeling rules of the profession. Disgust and revulsion may be appropriate in one's own social network but discrepant with what is perceived to be appropriate in a professional context. Professional values dictate that HCWs are obliged to care for all patient regardless of circumstance. Perceiving oneself as judgmental calls into question one's professional commitment (Geis & Fuller, 1985).

A further source of discrepant feelings, according to Thoits (1985), are environmental stimuli that may trigger spontaneous almost automatic emotions that are discrepant with the "feeling norm". More specifically, events that are novel, sudden, or threatening may lead to responses that are considered inappropriate to the situation. For example, Jones et al. (1984) suggest that the initial involuntary reaction to a deformed person is often one of horror and disgust. This emotional state conflicts with a norm of affective neutrality or even sympathy that governs interaction between the handicapped and the nonhandicapped. In a similar vein, caring for PWAs for most nurses was a new and threatening experience because of the perceived aversive consequences of becoming HIV infected. The nurses' occasional feelings of fear, stimulated by cues such as exposures or unpredictable situations, are an example of this source of discrepant feelings.

Discrepant feelings may also arise when the "ideal" is at variance with the "real". Thoits (1985) suggests that structural conditions may generate feelings that differ from those normatively required. Hochschild (1983) points out that such problems may be particularly prevalent among individuals in the service sector who are required to present themselves in an "idealized" light. She gives the example of flight attendants who are required to be genuinely warm, cheerful, and unafraid of flying in spite of objective conditions which give rise to more negative feelings. In the face of such structural situations, even "well socialized actors" may experience nonnormative feelings. Nurses are particularly aware of and constrained by others' expectations that they be caring and devoted (Marshall, 1986; Vachon et al., 1978). This expectation fosters their "best image of themselves" but conflicts with their daily experience of "the unpleasant practicalities of dealing with blood, excrement and illness" (Marshall, 1986, p. 279).

Discrepancy between professional norms and one's own feelings is also exemplified in others' work. Nelkin and Hilgartner (1986) quote a physician who was embroiled in a conflict about whether children with AIDS should attend school, "I have all the irrational fears. I know what it's like to be a mother. But I am also a pediatrician and epidemiologist". Similarly, Friedland (1989) states, "After seven years working with AIDS patients, knowing well the minimal statistical risks, I must admit that I remain frightened. I still interpret minor illness as the beginning of HIV infection" (p. 68). Others report the feelings of embarrassment created by fear. For example, Geis and Fuller (1985), in a study of hospice workers' responses to a PWA, found that nurses who discovered that they were fearful of contagion and death did not "like" these feelings. They had made a conscious decision to work with dying patients but now found themselves afraid. This fear led to a reexamination of their image as professional caregivers because the professional feeling rules dictated that being unafraid was inappropriate to the situation. That feeling afraid is perceived as unprofessional is well expressed by one of the informants in Geis and Fuller's study:

> I hate to say this. But yes, I was really scared, and when I tried to talk about it to

> any of the supervisors they just told me I was being unprofessional. I guess I was...when I'd try to tell somebody that I didn't feel like we knew enough about procedures and I was scared they'd tell me to be quiet or I'd upset everybody else. I suppose that's right; we had to take care of the patients...Nobody at the hospice would talk to me about being afraid (p. 24).

Similarly, Wiley et al. (1990) quotes a nurse, "I know I ought not to be afraid, but I am" (p. 32). In addition to fear, other emotions such as anger or resentment may also be considered "inappropriate". In fact, Simmons-Alling (1984) points out that anger may be the most difficult emotion to deal with "since it felt so malicious, ***inappropriate*** and disrespectful" [emphasis mine] (p. 35). In sum, these examples point out that HCWs caring for PWAs may experience a variety of private feelings which they consider to be inappropriate. Vachon et al. (1978) in another context sums it up this way, "Good nurses never have bad feelings".

Thoits (1985), in an elaboration of Hochschild's work, discusses several strategies to deal with dissonant feelings. These strategies were similar to the cognitive strategies nurses used to decrease fear and to increase their acceptance of the patient. She discusses several strategies that nurses also used to maintain their self-image as professionals particularly in terms of justifying and accepting discrepant feelings. Nurses reinterpreted situations not only to decrease fear but also to retain an existing emotional state by reappraising it as "appropriate".

That discrepant feelings create stress which needs to be managed has been reported in other occupational literature. Alkus and Padesky (1983) found that the professional feeling rules of police work may conflict with the policeman's personal feelings. Policemen, like nurses, are expected to model (both on and off the job) "superhuman expectations" in terms of carrying out their duty, controlling feelings, and being "fair and kind" to all. Like nurses, they work to present a positive self-image by not acknowledging openly their personal feelings of fear and anxiety.

In a somewhat different situation, Haas (1977) describes the expectations of high steel workers in terms of containing their fears. Although these workers felt afraid, they did not express their fear to others. To display fear would imply that one may be a danger to others. Consequently, these workers acted unafraid. Like the nurses, who feel that they cannot convey their fears to others (because this would be "unprofessional"), high steel workers were expected to act in ways which would convince others that they were unafraid (and therefore were "trustworthy"). The strategy of acting as if one is not afraid employed by both nurses and high steel workers suggests Goffman's impression management rather than an attempt to change feelings.

Wolf (1988) found that nurses working with infectious diseases seemed overtly unafraid of dealing with patients on isolation precautions. They acted secure in their knowledge of what they were doing. Fear of becoming infected was hidden and, in most instances, not discussed during their daily work. When fear did surface, it was often expressed as a hope that they would never bring anything home to their families or transmit it to other patients.

Wortman and Dunkel-Schetter (1979), in a study of interpersonal relationships of cancer patients, also describe how discrepant feelings create tension. They suggest that others' (including HCWs) reactions to patients are determined on the one hand by feelings about the patient and his illness (which are predominantly negative) and, on the other hand, by their beliefs about appropriate behavior to display when interacting with patients (predominately positive behaviors conveying optimism and cheerfulness). This discrepancy results in ambivalence, confusion, and discomfort when interacting with patients, which may lead to avoiding patients altogether, avoiding disclosures about their illness, or attempting to act as if they do not have the negative feelings they are privately experiencing.

Finally, Smith and Kleinman (1989) discuss how medical students learn to change or control inappropriate feelings. Medical students who work with the human body in intimate ways experience a conflict between their personal perspective and the professional perspective. They occasionally may experience feelings of embarrassment or disgust which are discrepant with the professional "feeling rules". To reduce their discrepant feelings the medical students used a variety of cognitive strategies including redefining the patient as an analytical object and distracting techniques that distanced them from the inappropriate feeling. The students, like the nurses, contained their inappropriate feelings because each student perceived that he or she alone was experiencing these feelings. Moreover, admitting such feelings would expose their inadequacies.

By way of summary, this study supports other research which suggests that personal feelings may conflict with professional expectations and can threaten one's professional self-identity. The basis of the discrepancy has been discussed in the context of the "sociology of emotions", particularly as interpreted by Hochschild (1979) and Thoits (1985). The major implication of the above discussion is the need to view nurses' fears from a perspective that includes not only their professional socialization but also acknowledges their participation in a larger cultural and social context. Friedland (1989) reiterates this by citing the following quotation from *AIDS Update 1988*:

> To assume that health care professionals need only a statistical appreciation of risk to assume the mantle of professional virtue in caring for AIDS patients is to deny their humanity (p. 67).

Slovic et al. (1980) further state:

> Experts and lay people are prisoners of rather different experiences. Once formed, beliefs change slowly, and are extraordinarily persistent in the face of contrary evidence. Initial impressions tend to structure the way subsequent evidence is interpreted. New evidence appears reliable and informative if consistent with initial beliefs, whereas contrary evidence is dismissed as unreliable, and erroneous (p. 189).

An appreciation of the social and cultural factors that give rise to nurses' fears of contagion may provide a better understanding of the discrepant feelings nurses may experience when caring for PWAs. In the next section, I turn to a focus on nurses' responses when they become exposed to HIV.

D. EXPOSURES AS "VICTIMIZING" EVENTS

Nurses' efforts to maintain a sense of control over risk ties in with an ever increasing literature on victimization. Actual exposures may be viewed as victimizing events. Nurses' coping efforts to deal with such exposures were found to be similar in many respects to other victims' efforts to manage threatening events. Not surprisingly, however, actual exposures also present unique dimensions. In this section, I would like to address briefly how the present findings relate to the major constructs in theoretical approaches to victimization.

In a general theoretical discussion of victimizing events, Taylor et al. (1983) suggest that victimization is inherently threatening and aversive not only in terms of the tangible loss and suffering it creates ("primary victimization") but also in its personal and social consequences ("secondary victimization"). Secondary victimization results from a disconfirmation of three basic assumptions and expectations that most people hold about themselves and their world (Janoff-Bulman & Frieze, 1983): (a) the belief in personal invulnerability, (b) the perception of the world as meaningful and comprehensible, and (c) the view of ourselves in a positive light. Nurses exposed to HIV experienced disconfirmation in each of these areas. Moreover, it has been suggested that the secondary victimization that accompanies AIDS may be unique in that it stems from associations with deviant social groups as well as from the aversive nature of the disease itself. In other words, secondary victimization may be experienced as stigmatization and discriminatory behavior including lack of support from friends, relatives, and HCWs (Pryor et al., 1989).

One of the major personal consequences faced by victims in general is loss of a sense of control (Taylor et al, 1983; Perloff, 1983; Wolfenstein, 1957; Janis, 1962/1982). Feelings of loss of control were well illustrated by the nurses in this study who suffered exposures. Exposure leads to new feelings of vulnerability and emotional distress. Nurses' loss of control is perhaps unique in that the effects of the exposure are uncertain, which may pose long term threats to their sense of control (Baum et al, 1983). In addition to the loss of control, and closely related to it, is the loss of self-esteem. Taylor et al. (1983) suggest that victimization may be aversive to the self even when individuals bear no responsibility for the event. Moreover, it may be aversive because it forces people to categorize themselves with other stigmatized people. Because of the implications of victimization (loss of control and loss of self-esteem), these authors predict that victims will seek to minimize these implications by controlling the perception of the self as victim. To minimize the threat, victims may redefine the event by selectively evaluating their situation so as to minimize its negative effects.

In my study, nurses attempted to minimize their victimization status by redefining the event of exposure as *not* having caused harm. This included vigilant behaviors to rule out possibilities of harm and selective comparisons which focused on the low infectivity of HIV and the conditions surrounding their exposures. On first blush, the increased attention to any threat-relevant cues that some nurses demonstrated may seem contradictory to the task of minimizing one's self as a victim. The purpose of this vigilant behavior, however, was precisely to rule out the status of victim. Nurses also attempted to minimize the victimizing event by "distancing" from the distress and avoiding situations that would elicit fear.

Nurses' attention to the issue of testing presents an interesting dilemma when considered from the standpoint of its function in minimizing victim status. On the one hand, testing could negate this status; on the other hand, once tested, the label of victim could be indelibly assigned. Moreover, because of the perceived personal and social consequences of a positive result, nurses may prefer to minimize their exposure "status" by concealing it from themselves and others (i.e., by not getting tested). The dilemma assumes considerable significance because the social and personal consequences of not knowing one's status also is perceived to cause harm, not only to oneself but perhaps also to significant others. Viewed from this perspective, the decision to test is indeed complex.

In addition to preserving the image of nonvictim to themselves, victims also may need to present this image to others because of the aversive social consequences they anticipate from their victimization (Taylor et al., 1983). "Anticipating derogation from others can act as an impetus for minimizing one's status as a victim" (p. 23). The aversive social consequences of HIV exposure need little elaboration. Nurses are well aware of the stigma PWAs encounter, and in the event of their own exposure "anticipate" such derogation. Indeed, "nondisclosure" was a major strategy used by nurses to minimize their "victim" status to others. Moreover, their motives support the literature that suggests that over and above the more aversive responses (e.g., rejection) even "well-intentioned" concern may be aversive. An additional finding in my study was that nurses may perceive the aversiveness of exposure not only in terms of the consequences of acquiring HIV infection and AIDS but also from the standpoint of what it reflects about their inadequacies to prevent it. In other words, because of the professional context of their victimization, nurses may conceal their status to preserve their professional self-esteem.

Disclosing exposures to family members is of particular importance because of its implications. Nurses who disclose their exposure status to family members risk potential negative consequences in terms of rejection or conflict. They may, however, feel compelled to tell because of their commitment to their partner's safety.

In short, the social consequences of "victimization" may be particularly aversive for HCWs exposed to HIV especially since the consequences of exposure may affect directly those closest to the nurse. Moreover, the nurse's significant others (and even the nurse herself) may come to blame the patient for the nurse's victimization. While negative feelings toward those perceived to be responsible for the "victimizing event" may also occur in other cases of victimization, the AIDS situation may be unique in that the nurse feels a commitment to care in spite of risk. Further research on victimization of professional workers in similar situations would extend the findings of this study.

The above discussion provides insight into why victims may minimize their victim status to others. On the other hand, there is evidence that victims do seek out others in times of distress. Research has shown that positive social support may be helpful in reducing the stress of victimization (Friedman et al., 1982; Silver & Wortman, 1980; Gottlieb, 1979). Coates and Winston (1983), in a review of the role of peer support goups, offer evidence that such groups may be helpful following victimization, particularly if they are led by professionals. They suggest that peer support groups may reduce the victims' self-perception of deviance. A social comparison with similar others may enhance their feelings that their reactions are normal and may facilitate coping by encouraging comparisons with "role models" (Stewart, 1989; Taylor, 1983). Such groups are presumed to be particularly helpful when "standards of appropriate emotional reactions" are not clear (Coates & Winston, 1983; Festinger, 1954). This would be particularly pertinent in novel situations such as nurses' exposures to HIV. Moreover, given some nurses' high expectations of their ability to prevent exposures, the use of "professional" standards to evaluate the appropriateness of their reactions may lead them to conclude that they are responding abnormally. On the other hand, comparing their reactions to similarly exposed others may validate the appropriateness of their feelings. "Talking about it", however, seems to be threatening as well. The problem appears to be how to balance the need to conceal one's status from others in order to preserve one's self-esteem with the need for reassurance that may decrease anxiety. An appreciation of the reasons why nurses may conceal their exposure status, as discussed in this study, may be helpful in openly addressing this problem.

E. LIMITATIONS OF THE STUDY

There are several factors that may decrease the validity and reliability of this study and that therefore may be seen as limitations.

1. Threats to Validity

Internal validity, or the degree to which the findings represent the reality of the situation, is one of the strengths of qualitative research because the data collection and analysis techniques ensure that the individual respondent's version of reality is represented. Nonetheless, internal validity can be threatened by a number of factors. These factors primarily derive from two sources of "subjectivity": the "researcher-as-instrument", whereby the amount and quality of data collected and the depth of analysis are dependent on the interviewer's abilities (Field & Morse, 1985), and the quality of the respondents' reports.

Regarding the researcher-as-instrument, in general terms the data collection is in part dependent on the interviewer's ability to establish trust and rapport and on the researcher's interviewing techniques. The quality of data analysis is contingent on the researcher's insight, knowledge, and assumptions. A specific threat to internal validity may have been produced by the interviewer unconsciously communicating expectations to the informants. Because the researcher helps to reconstruct informants' accounts, a threat to validity may occur if the researcher biases informants' reponses. In this study, the use of broad, open-ended questions and neutral probe questions allowed respondents to set the direction of their accounts. A review of the transcripts did not reveal the use of leading questions.

Further in regards to the researcher-as-instrument, internal validity may be threatened not only during data collection but also during the analysis. Miles and Huberman (1984) discuss several biases that beset the researcher which may decrease the validity of interpretations. For example, the researcher may interpret events as more patterned and congruent than they really are. This bias can be decreased by a constant comparison and contrast of data, checking the meaning of the "negative" case, and checking out rival explanations. Bias may also be decreased by having someone other than the researcher look at the data. All of these methods were used in this study. In this study there were instances of "negative" cases in terms of both individuals and situations which were useful in determining relationships between categories. Nonetheless, it is possible that a more varied sample may have yielded more information. For example, there were very few cases of "actual" exposure and very few cases of nurses who cared for PWAs infrequently. That is, most of the sample were experienced and "successful" copers. Nurses that had selected themselves out of caring for PWAs were not available for study.

The second major threat to internal validity is the quality of the subjects' reports. Qualitative researchers study people's perceptions or accounts of situations or events. The purpose of qualitative research is not to determine "objectively" what has happened but to objectively report the perceptions of the actors (Field & Morse, 1985, p. 116). Nevertheless, there are factors that may decrease the validity of the informants' self-reports. For example, validity may be decreased by the informants' inability to accurately recall perceptions of events and their responses to these events (Folkman & Lazarus, 1984). The effect of this limitation can be decreased by the use of prompts as the researcher helps the informants reconstruct their accounts. In this study, some nurses first began caring for PWAs 5-7 years ago. Some nurses occasionally remarked that they were unable to remember "exactly" how they felt. For the majority, however, the event of first caring for patients was remembered vividly perhaps because of the intensity of emotion it elicited. Although some nurses were unable to articulate clearly how they became comfortable in caring for PWAs, most nurses were able to describe how their experiences in caring for PWAs had changed over time. Further to the problem of forgetting as a function of time, memory distortion may itself be used as a way of coping (Folkman et al., 1986). While this mechanism may distort what "actually" occurred, this phenomenon is itself a coping strategy worthy of note. This phenomenon, however, could not be assessed in this retrospective study but would require a longitudinal study design. It seems reasonable, however, to assume that not all thirteen subjects would use distortion or would distort the same phenomenon in the same manner.

Further in regards to the quality of the subjects' reports, another potential threat to validity in the present study is social desirability. This may have been an issue given the media attention that has been directed at HCWs' responses to caring for PWAs. Nurses may have been compelled to report the appropriate "professional" response rather than to acknowledge their true feelings about contagion. I attempted to reduce this threat by assuring confidentiality and anonymity. Many nurses did reveal feelings that were dissonant with their perceptions of professional norms which indicates that nurses were relatively candid when interviewed. My "nonassociation" with the hospital also may have put the discussions on more neutral ground. While most of the respondents knew that I was a nurse, they also were aware that my studies were in the Department of Sociology.

One of the greatest limitations of this study is its lack of generalizability, that is, its external validity. This arises from the size and nature of the sample of informants. The study was conducted on a small convenience sample which might have allowed for only limited variability. It follows that the informants' perceptions of risk and coping responses may not be representative of all nurses who have cared for PWAs or of those nurses at this particular agency or even on their particular units. Perhaps those nurses who felt most comfortable with risk or who had a special commitment to caring for PWAs felt freer to participate. The majority of nurses who participated were from the unit that cares for the majority of patients. Moreover, the majority of the patients for whom they cared were homosexual men, with fewer patients being intravenous drug users or patients who had acquired AIDS from blood products. A further restriction of the sample is that all of the nurses interviewed were part of a network of coworkers that they perceived as supportive. Perhaps interviewing "float" nurses, who are not attached to a particular unit and may not develop long-standing relationships with patients, would have yielded different data, particularly in terms of perceived support and the perceived meaningfulness of work.

Glaser (1978) has suggested that the greater the sample variation, the greater the likelihood that the researcher has sought out and addressed the "negative case". Using more than one site also increases the generalizability of the findings because it reassures one that events and processes in one setting are not wholly idiosyncratic (Miles & Huberman, 1984). Using more than one nursing unit allowed for this to some extent but other health care settings (e.g., home care) perhaps would have yielded different results. While the small sample may not permit generalizability, similar findings in the literature do increase the validity of findings. The findings in this study were compared to other studies exploring HCWs' responses to PWAs and to studies examining workers' responses to occupational risk. It must be emphasized, however, that it is not the purpose of qualitative research to generalize findings but rather to determine what is occurring in a specific context, thereby eliciting meaning in a particular situation (Field & Morse, 1985). More specifically, the intent of this study was to describe the process of coping with the threat of AIDS and to discover factors that influence coping rather than to identify the distribution of these factors in the population. In qualitative research, the goal is to compare and contrast to other groups, not to generalize.

Glaser (1978) suggests that a grounded theory must have "fit" and "relevance" and that it must "work" and be readily modifiable. "Fit" means that the categories generated are indicated by the data and readily applied to it. Since the categories are generated from the data, this criterion is automatically met. "Relevance" refers to the notion that the findings speak to or are relevant to the action of the area explored and is achieved by "allowing" processes to emerge rather than imposing preconceived theories to the data. "Work" means that the theory generated can explain what is going on and can be modified to accommodate more information. In this research, the process of coping with risk of contagion could accommodate information beyond the present study; that is, using other HCWs working with other clients in different circumstances. However, further information may suggest modifications in the specific strategies used by the nurses in this study or in the conditions which influence their use.

2. Threats to Reliability

The focus of qualitative research is not on "replication" but on "comparability" (LeCompte & Goetz, 1982). These authors suggest that qualitative research falls short of external reliability (i.e., would independent researchers discover the same phenomena or generate the same constructs in the same or similar situations). This, however, is not perceived as a limitation but as a strength because qualitative studies provide "different" ways of approaching a phenomenon. Other researchers, conducting a similar study, may not come up with the same constructs for a variety of reasons. First, they may not have access to the same informants and the respondents selected may have somewhat different perceptions. Therefore, it is important for the researcher to carefully describe who the informants are, how they were obtained, and why they were chosen. Second, the informants may be from different social settings. Therefore, the researcher must specify the social situation wherein the data were collected. Third, the researcher may be approaching the data from a different theoretical perspective. Therefore, it is important to outline the theoretical premise and constructs that inform and shape the research.

Internal reliability (i.e., would researchers given the constructs generated match them with the data in the same way) is applicable to qualitative research. Internal reliability is increased by using "low inference" indicators in the form of narrative descriptors (primary data), verbatim accounts, and mechanically-recorded data. Review by someone other than the researcher also helps to determine if the data collected "fits" the categories generated.

In sum, I have delineated several potential limitations of this study and how I have attempted to address them throughout this project. Perhaps the greatest limitation arises from the size and nature of the sample which suggests that caution must be exercised in the application of these findings. This limitation, however, suggests areas for further research which I will discuss in the next section.

F. DIRECTIONS FOR FURTHER RESEARCH

This research raises a number of issues that could become the focus for further study in the area of HCWs' responses to caring for PWAs. Because of the exploratory nature and small sample size of this study, other studies using a similar approach should be conducted in different contexts to validate, clarify, and if possible expand the findings of this research. Specifically, it would be useful to examine how nurses in other settings (e.g., emergency, operating room, home care) cope with risk and how HCWs other than nurses manage their perceptions of risk. The findings of this study suggest that "getting to know the patient" is an important aspect of becoming comfortable with risk. How do HCWs who do not establish long-term relationships with patients cope with risk? Lab technicians, for example, have less (or even no) continued contact with patients yet are subjected to HIV-infected body fluids. Are their coping strategies different from those of the study nurses?

Another potential area of research that would expand the findings of this study is related to the kinds of patients for whom nurses care. Because of the present epidemiological pattern of AIDS in this particular geographical location, this study was limited primarily to nurses caring for AIDS patients who are homosexual men. However, as pointed out previously, there is some evidence in this and other research that caring for HIV-infected IV drug users may pose particular concerns. Given the importance in this research of the nurse-patient relationship in justifying risk and finding work meaningful, it is important to explore how HCWs cope with risk when the patient (e.g., an IV drug user) is less likely to "elicit" caring responses and may even be perceived as posing a greater physical threat. How do nurses view these patients and how do they establish "accepting" relationships with them? Other groups of patients that may elicit different responses from caregivers are women with AIDS, and children with AIDS. In this study, perceived similarity appeared to increase female nurses' empathic responses while simultaneously increasing their feelings of vulnerability. It would be useful, therefore, to explore how female nurses respond to caring for women and children who have AIDS and to compare such responses to the findings of the present study.

As pointed out previously, the majority of nurses in this study were "experienced" and "successful" copers. Comparing their responses to a larger sample of nurses who were not coping well would strengthen the findings of this study. Further, all of the study nurses were part of a network of coworkers. Interviewing nurses who are not attached to a particular unit may yield different results. It may also be beneficial to study HCWs who have decided not to care for PWAs in order to identify the factors influencing their decisions and the meanings that their decisions have for them as professional caregivers.

Although the focus of this study was limited to the *nurses'* responses to risk, their responses influenced and were influenced by their perceptions of and interactions with patients, coworkers, significant others, and the agency's administration. The knowledge gained from this study would be more complete if it were compared with similar information from patients, nurses' significant others, and administrative personnel. For example, it may be beneficial to examine the patients' responses to their caregivers. How do patients respond to HCWs' use of precautions, and how do patients "work at" developing relationships with HCWs? Similarly, this research was restricted to nurses' perceptions of their families' concerns. Examining responses from caregivers' family members about how they perceive and cope with risk may increase our understanding of their coping strategies and their effects on caregivers. Such information may be useful to health care agencies in designing educational and supportive services for their staff. Finally, this study did not ascertain administration's view of nurses caring for PWAs. This and other research suggests that nurses' views of their work and the perceived "appropriateness" of feelings and coping strategies may be discrepant with their perceptions of administration's view. Exploring administration's perceptions would appear to be an important step in providing appropriate responses to nurses' concerns.

Given the limitation of the retrospective study method, it would be beneficial to conduct a prospective longitudinal study that focuses on nurses' perceptions and coping responses. Such a design would capture more completely and accurately the unfolding of the coping process over time. Nurses' perceptions and responses could be analyzed and compared at various time periods. For example, nurses' thoughts and feelings could be ascertained prior to their caring for PWAs, in their initial caring encounters with PWAs, and periodically thereafter.

Finally, this research suggests that nurses' experiences with "actual" exposures can be very traumatic. To date, almost no research has addressed this topic. The few "cases" in this study are a beginning data base. It would be particularly beneficial to conduct longitudinal studies that explore responses to actual exposure over time. Such a study could add to our knowledge of coping with threatening events that are uncertain and potentially serious. Over and above the need to study nurses' responses to threatening events, further research to determine the contexts in which exposures occur would be useful from the standpoint of preventing exposure (Stock et al., 1990).

In addition to recommendations for further research in the substantive area of HCWs' responses to AIDS, the findings from this study also point to more general issues that could usefully be explored. Glaser (1978) contends that findings from a study in one substantive area invariably have more general implications. Moreover, comparisons of different substantive areas can be a beginning step toward more general theory development. In this regard, the findings from this study suggest potential areas for research in other areas wherein individuals cope with risk that may have serious consequences. More specifically, it may be beneficial to look at other situations in which individuals work to gain a sense of control over threatening events and where the "source" of risk is someone to whom the risk-bearer also feels a sense of commitment and responsibility. For example, how do nurses and other professional caregivers respond to situations in which they perceive themselves to be the target of potential physical abuse from clients? Beyond the professional caregiver-client encounter, another situation in which commitment to the source of risk may be "expected" is that of family members suffering abuse from other family members. In such situations, one would expect that the abused individuals may use coping strategies that attempt to protect themselves (and perhaps others) from "exposure", that reduce fear by minimizing or diverting attention from risk, and that "justify" the risk. One would also expect that the abused individual may experience "inappropriate" feelings that may threaten his or her self-identity.

Finally, as has been mentioned previously, the findings of this study that address nurses' acceptance of those "different" from themselves extends the data base in the general area of the "sociology of acceptance". Research that explores how individuals in other contexts come to "accept" those who are perceived to be "different" from themselves would add further to this body of knowledge.

G. HYPOTHESES

The purpose of an exploratory study such as this is to begin to generate hypotheses about a specific situation which later research can refine, expand, and test. Hypotheses based on the findings of the present study are presented below:

1. As the uncertain aspects surrounding HIV infection and AIDS (in terms of mode of transmission, length of incubation period, course of HIV infection, and treatment) are decreased, HCWs will experience less fear in caring for PWAs.
2. As our ability to control the seriousness of the consequences of HIV exposure increases (in terms of effective treatment), nurses' fears in caring for PWAs will decrease.
3. In situations of uncertainty, a sense of control over risk results from a combination of emotion-focused and problem-focused strategies.
4. Those nurses who will have the most difficulty adjusting to caring for PWAs will be those who respond to risk by extreme "vigilant" coping strategies or by extreme "reassurance" strategies (to the exclusion or neglect of one or the other).
5. Nurses who perceive a greater element of uncertainty and seriousness to risk will be more likely to employ precautions that cover "theoretical" risk possibilities.
6. Nurses who have a greater tolerance for ambiguity can be expected to have a lower degree of fear of acquiring HIV infection and AIDS than do nurses who have a lower tolerance for ambiguity.

7. Female nurses who care for women with AIDS can be expected to experience greater feelings of vulnerability than when caring for homosexual men.
8. Increased public acceptance of patients with AIDS will result in greater social valuation of the nurses' work. Moreover, the degree of support that nurses receive from others can be expected to increase as the public's attitudes toward PWAs become more positive.
9. Nonwork support (e.g., from significant others) can be expected to decrease the level of stress experienced by HCWs caring for PWAs.
10. As nurses become more aware of others' experiences with HIV exposures, they will be more likely to seek support from other coworkers and will be less likely to use nondisclosure as a coping strategy.
11. The more stigmatizing AIDS is perceived to be, the more likely that nurses will use nondisclosure as a coping strategy when they become exposed. The more preventable exposure is perceived to be, the more likely that nurses will not disclose their exposures to others.
12. Coworker support in the form of emotional, appraisal, and instrumental support can be expected to buffer the stress produced when caring for PWAs.
13. Nurses who find their work with PWAs "meaningful" will also tend to see it as "manageable". Those nurses who have a more "negative" view of patients will tend to find the risk less acceptable.
14. Nurses will be more likely to derogate the patient when they perceive a heightened threat to themselves. Therefore, when nurses become "exposed" they may be more likely to "blame" the patient for exposing them to HIV.

In addition to generating research questions and hypotheses, this study suggests implications for agencies that care for PWAs.

H. IMPLICATIONS FOR HEALTH CARE AGENCIES

Although the results of this small study must be regarded as "tentative", the findings (supplemented by other research) do suggest a number of implications for agencies that care for PWAs. An examination of the theoretical writings on "burnout" (e.g., Cherniss, 1980; Edelwich & Brodsky, 1980; Maslach, 1982) would suggest that nurses who care for PWAs are at increased risk for burnout. The present study uncovered several factors related to the nature of the nurses' involvement with patients as well as to the work setting that may make AIDS caregivers particularly vulnerable. Factors associated with the nature of the nurse-patient relationship are the nurses' high level of emotional involvement with patients, the need to manage "inappropriate" feelings of fear and hostility, and the perceived professional standards of care. Additional factors that may contribute to burnout are the nurses' perceptions that others may not value their work and that the "system" may at times be insufficiently responsive to the needs of those for whom they care. In addition, the work "overload" as described by the study nurses may lead to a reduced sense of personal accomplishment. Moreover, the increased workload may limit the nurses' encounters with patients to that of attending primarily to "problems" rather than getting to know the patient more holistically (Maslach, 1982). In this regard, Cherniss (1980) provides evidence that a narrower "scope of client contact" may decrease the caregiver's ability to sustain caring and commitment to the client. Furthermore, the "depersonalization" of the client that often accompanies burnout may in this situation reinforce the metaphor of "patient as other". In short, an understanding of the nurses' experiences in caring for PWAs can alert health care agencies to possible factors contributing to burnout.

The data from this study suggest that further support services may be beneficial in helping nurses to cope with the demands of caring for PWAs. Several nurses themselves suggested the need for professional workers who could help them to cope with their own feelings and to increase their competence in caring for PWAs. Other writers have advised that accessibility to mental health consultants for staff is essential for AIDS caregivers (e.g., Flaskerud, 1987; LeBourdais, 1989). Many authors have advocated support groups that would provide both educative and supportive functions for HCWs (Hurley, 1989; Hoffman et al., 1989; Gerbert et al., 1988; Bartnof, 1988; Brennan, 1988; Clever, 1988; Wiley et al., 1990). Issues arising from my study that could usefully be explored in a support group environment include: (a) coping with concerns of family and friends, (b) acquiring up-to-date knowledge about HIV infection and AIDS, HIV transmission and control, (c) acknowledging, validating, and managing concerns and "inappropriate" feelings such as fear of contagion and resentment of PWAs, and (d) validating the importance of the nurses' work. This study suggests that nurses may not readily reveal their feelings and provides some insight into the conditions that may contribute to nondisclosure. Such knowledge can be used by support group leaders to address issues in a sensitive manner. The results of this research (supplemented by other research findings) could be used to help others understand the concerns that nurses may have in caring for PWAs and how some nurses have coped with their concerns. Because of the "perceived deviance" nurses may experience in terms of feelings and concerns, it may be important to present "typical" responses which may help nurses to "normalize" their personal feelings. Moreover, anticipatory information about what to expect in terms of feelings and responses may be particularly important when nurses first begin caring for PWAs. Such information may help nurses not only to preserve their self-esteem but also to feel more comfortable in seeking out knowledgeable others.

In addition to an ongoing support group for nurses, it may also be beneficial to explore the need for a support group for those nurses who have been exposed to HIV. Wiley et al. (1990), in the only other study addressing nurses' exposures, advocates that a support group led by a nonjudgmental professional may provide opportunities to discuss concerns as well as to share information and correct misinformation about seroconversion. The present study provides beginning insight into nurses' experiences and the coping strategies that they employ when they become exposed. An appreciation of factors that may lead to a coping strategy of nondisclosure (rather than seeking support) may help to address concerns in an open yet sensitive manner. Of crucial importance in the support offered to HCWs is creating and maintaining a trusting environment that ensures confidentiality. Moreover, because of nurses' various needs and concerns and their individual preferences for managing these, it is important that individual counselling also be available both within and outside the agency in which nurses work.

A further issue arising from this research is the nurses' perceptions of how others value their work. Again, this issue has emerged in others' research (e.g., Brennan, 1988; Hoffman et al., 1989). The present research suggests that it is often others' attitudes toward those who have AIDS that influences how others feel about the nurses' work. It may, therefore, be beneficial for nurses' families to participate in support groups or education sessions as is being done, for example, in the California Nurses' Association "Train the trainer" program (Gardner, 1988).

In conclusion, this research provides us with an appreciation of thirteen nurses' experiences in caring for PWAs in a large acute-care hospital. More specifically, it sensitizes us to the nurses' perceptions of risk and their efforts to cope with risk by making it both "manageable" and "meaningful". Knowledge of the process of coping and the factors that facilitate and impede nurses' efforts to maintain a sense of control over risk provides a beginning understanding of how nurses provide care in situations that may be threatening to their life, their professional self-identity, and the relationships they share with significant others. Finally, increased knowledge of the qualitative factors that influence risk and coping can be used to provide caregivers of PWAs with knowledgeable and sensitive support that will enhance both the manageability and the meaningfulness of their work.

REFERENCES

AIDS Precautions changing practice, RN's agree: OSHA already moving to enforce CDC guidelines. (1988, March). American Journal of Nursing, pp. 372, 373, 388, 390.

Albrecht, G. L., Walker, V. G., & Levy, J. A. (1982). Social distance from the stigmatized. Social Science Medicine , 16, 1319-1327.

Alkus, S., & Padesky, C. (1983). Special problems of police officers: Stress-related issues and interventions. The Counselling Psychologist, 11(2), 55-64.

Allen, J., & Curran, J. W. (1988). Prevention of AIDS and HIV infection: Needs and priorities for epidemiologic research. American Journal of Public Health, 78, 381-386.

Amchin, J., & Polan, H. J. (1986). A longitudinal account of staff adaptation to AIDS patients on a psychiatric unit. Hospital and Community Psychiatry, 37, 1235-1238.

Antonovsky, A. (1987). Unravelling the mystery of health. London: Jossey-Bass.

Archbold, P. (1986). Ethical issues in qualitative research. In W. C. Chenitz & J. M. Swanson (Eds.), From practice to grounded theory: Qualitative research in nursing (pp. 155-163). Menlo Park, CA: Addison-Wesley.

Armstrong-Esther, C., & Hewitt, W. E. (1990). The effect of education on nurses' perceptions of AIDS. Journal of Advanced Nursing, 15, 638-651.

Aronfreed, J. (1968). Conduct and conscience. New York: Academic Press.

Arras, J. D. (1988). The fragile web of responsibility: AIDS and the duty to treat. Hastings Center Report, 18(April-May), 10-19.

Atchison, B. J., Beard, B. J., & Lester, L. B. (1990). Occupational therapy personnel and AIDS: Attitudes, knowledge, and fears. The American Journal of Occupational Therapy, 44, 212-217.

Averill, J. R. (1973). Personal control over aversive stimuli and its relationship to stress. Psychological Bulletin, 80, 286-303.

Bailey, J., Steffen, S., & Grout, J. (1980). The stress audit: Identifying the stressors of ICU Nursing. Journal of Nursing Education, 19(6), 15-25.

Bailey, R. C., Reynolds, F., & Carrico, M. (1989). College students' perception of AIDS victims. Social Behavior and Personality, 17(2), 199-204.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behaviorial change. Psychological Review, 84, 191-215.

Bartnof, H. S. (1988). Health care professional education and AIDS. Death Studies, 12, 547-562.

Bartolome, F., & Evans, P. (1980). Must success cost so much? Harvard Business Review, 1980, 58(2), 137-148.

Baum, A., Fleming, R., & Singer, J. E. (1983). Coping with victimization by technological disaster. Journal of Social Issues, 39(2), 117-138.

Becker, H. (1963). *Outsiders: Studies in the sociology of deviance*. New York: Free Press.

Benner, P., & Wrubel, J. (1989). *The primacy of caring: Stress and coping in health and illness*. Menlo Park, CA: Addison-Wesley.

Bennett, J. (1987). Nurses talk about the challenge of AIDS. *American Journal of Nursing*, *87*, 1150-1155.

Berger, P., & Luckmann, T. (1967). *The social construction of reality*. New York: Doubleday.

Bhagat, R., Lindholm, H., McQuaid, S., & Segovis, J. (1985). Total life stress: A multimethod validation of the construct and its effects on organizationally valued outcomes and withdrawal behaviors. *Journal of Applied Psychology*, *70*, 2102-2214.

Blumenfield, M., Smith., P., Milazzo, J., Seropian, S., & Wormser, G. (1987). Survey of attitudes of nurses working with AIDS patients. *General Hospital Psychiatry*, *9*, 58-63.

Blumer, H. (1969). *Symbolic interaction: Perspective and method*. Englewood Cliffs, NJ: Prentice-Hall.

Bogdan, R., & Taylor, S. J. (1975). *Introduction to qualitative research methods: A phenomenological approach to the social sciences*. New York: John Wiley & Sons.

Bogdan, R., & Taylor, S. J. (1982). *Inside out: The social meaning of mental retardation*. Toronto: University of Toronto Press.

Bogdan, R., & Taylor, S. J. (1987). Toward a sociology of acceptance: The other side of the study of deviance. *Social Policy*, *18*(2), 34-39.

Bogdan, R., & Taylor, S. J. (1989). Relationships with severely disabled people: The social construction of humanness. *Social Problems*, *36*(2), 135-148.

Bosk, C. L., & Frader, J. E. (1990). AIDS and its impact on medical work: The culture and politics of the shop floor. *Milbank Quarterly*, *68*(Suppl. 2), 257-279.

Boss, P. G. (1987). The role of intuition in family research: Three issues of ethics. *Contemporary Family Therapy*, *9*, 146-159.

Brandt, A. (1986). AIDS: From social history to social policy. *Law Medicine and Health Care*, *14*, 231-242.

Brehm, J. W. (1966). *A theory of psychological reactance*. New York: Academic Press.

Bremner, M., & Brown, L. (1986). Learning to care for clients with AIDS--The practicum controversy. *Nursing and Health Care*, *7*, 251-253.

Brennan, L. (1988). The battle against AIDS. *Nursing '88*, *18*(4), 60-64.

Brickman, P., Rabinowitz, V. C., Karuza, Jr. J., Coates, D., Cohn, E., & Kidder, L. (1982). Models of helping and coping. *American Psychologist*, *37*, 368-384.

Brown, G., & Harris, T. (1978). *Social origins of depression.* New York: Free Press.

Brown, M. L. (1987). AIDS and ethics: Concerns and considerations. *Oncological Nursing Forum*, *14*(1), 69-73.

Brown, M. S. (1987). Communicating information about workplace hazards: Effects on worker attitudes toward risks. In B. Johnson & V. Covello (Eds.), The social and cultural construction of risk (pp. 251-274). Boston: D. Reidel.

Browner, C. H. (1987). Job stress and health: the role of social support at work. Research in Nursing and Health, 10, 93-100.

Bulman, R. J., & Wortman, C. B. (1977). Attributions of blame and coping in the "real world": Severe accident victims react to their lot. Journal of Personality and Social Psychology, 35, 351-363.

Byrne, D. (1971). The attraction paradigm. New York: Academic Press.

Campos, J. J., & Stenberg, C. (1981). Perception, appraisal, and emotion: The onset of social referencing. In M. E. Lamb & L. R. Sherrod (Eds.), Infant social cognition: Empirical and theoretical considerations. Hillsdale, NJ: Lawrence Erlbaum.

Chaiken, A. L., & Darley, J. M. (1973). Victim or perpetrator? Defensive attribution of responsibility and the need for order and justice. Journal of Personality and Social Psychology, 25, 268-275.

Chenitz, W. C., & Swanson, J. M. (1986). Qualitative research using grounded theory. In W. C. Chenitz & J. M. Swanson (Eds.), From practice to grounded theory: Qualitative research in nursing (pp. 3-15). Menlo Park, CA: Addison-Wesley.

Cherniss, C. (1980). Professional burnout in human service organizations. New York: Praeger.

Chiriboga, D. A., Jenkins, G., & Bailey, J. (1983). Stress and coping among hospice nurses: Test of an analytic model. Nursing Research, 32, 294-298.

Clever, L. H. (1988). AIDS: A special challenge for health care workers. Death Studies, 12, 519-529.

Clever, L. H., & Omenn, G. S. (1988). Hazards for health care workers. Annual Review of Public Health, 9, 273-303.

Clore, G. L., & Byrne, D. (1974). A reinforcement-affect model of attraction. In T. L. Huston (Ed.), Foundations of interpersonal attraction (pp. 143-170). New York: Academic Press.

Coates, D., & Winston, T. (1983). Counteracting the deviance of depression: Peer support groups for victims. Journal of Social Issues, 39(2), 171-196.

Cockerham, W. C. (1986). Medical Sociology (3rd ed.). Englewood Cliffs, New Jersey: Prentice-Hall.

Cohen, M. A., & Weisman, H. W. (1986). A biopsychosocial approach to AIDS. Psychosomatics, 27(4), 245-249.

Cohen, S., & Wills, T. (1985). Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98, 310-357.

Coke, J. S., Batson, C. D., & McDavis, K. (1978). Empathic mediation of helping: A two-stage model. Journal of Personality and Social Psychology, 36, 752-766.

Conrad, P. (1986). The social meaning of AIDS. Social Policy, 17, 51-56.

Cooke, M. (1990). Physician risk and responsibility in the HIV epidemic. Western Journal of Medicine, 152, 57-61.

Coombs, R. H., & Goldman, L. J. (1973). Maintenance and discontinuity of coping mechanisms in an intensive care unit. Social Problems, 20(3), 342-355.

Corbin, J. (1986). Qualitative data analysis for grounded theory. In W. C. Chenitz & J. M. Swanson (Eds.), From practice to grounded theory: Qualitative research in nursing (pp. 91-101). Menlo Park, CA: Addison-Wesley.

Coyne, J. C., Aldwin, C., & Lazarus, R. S. (1981). Depression and coping in stressful episodes. Journal of Abnormal Psychology, 90, 439-447.

Crawford, J. L. (1974). Task uncertainty, decision importance, and group reinforcement as determinants of communication processes in groups. Journal of Personality and Social Psychology, 29, 619-625.

Davidson, M., & Cooper, C. (1981). A model of occupational stress. Journal of Occupational Medicine, 23(8), 564-574.

Davidson, M. J., & Veno, A. (1980). Stress and the policeman. In C. Cooper & J. Marshall (Eds.), White collar and professional stress (pp. 131-166). Toronto: John Wiley.

Davis, F. (1961). Deviance disavowal: The management of strained interaction by the visibly handicapped. Social Problems, 9(2), 120-132.

Decker, F. H. (1985). Socialization and interpersonal environment in nurses' affective reactions to work. Social Science Medicine, 20, 499-509.

Delvaux, N., Razavi, D., & Farvacques, C. (1988). Cancer care--a stress for health professionals. Social Science Medicine, 27, 159-166.

Dodds, R. D. A., Guy, P. J., Peacock, A. M., Duffy, S. R., Barker, S. G. E., & Thomas, M. H. (1988). Surgical glove perforation. British Journal of Surgery, 75, 966-968.

Dohrenwend, B., & Dohrenwend, B. (Eds.).(1981). Stressful life events and their contexts. New York: Prodist.

Douglas, C. J., Kalman, C. M., & Kalman, T. (1985). Homophobia among physicians and nurses: an empirical study. Hospital and Community Psychiatry, 36, 1309-1311.

Douglas, M. (1966). Purity and danger. London: Routledge & Kegan Paul.

Douglas, M. (1985). Risk acceptability according to the social sciences: Social Research Perspectives occasional reports on current topics. New York: Russell Sage Foundation.

Douglas, M., & Wildavsky, A. (1982). Risk and culture: An essay on selection of technological and environmental dangers. Berkeley: University of California Press.

Dunkel, J., & Hatfield, S. (1986). Countertransference issues in working with persons with AIDS. Social Work, (March/April), 114-117.

Edelwich J., & Brodsky, A. (1980). Burnout: Stages of disillusionment in the helping professions. New York: Human Sciences Press.

Eisenberg, L. (1986). The genesis of fear: AIDS and the public's response to science. Law Medicine and Health Care, 14, 243-249.

Eiswirth-Neems, N. A., & Handal, P. (1978). Spouses' attitudes toward maternal occupational status and effects on family climate. Journal of Community Psychiatry, 6, 168-172.

Elford, J. (1987). Moral and social aspects of AIDS: A medical students' project. Social Science Medicine, 24, 543-549.

Elmslie, K., Mulligan, L., & O'Shaughnessy, M.V. (1988). Occupational exposure to the human immunodeficiency virus among health-care workers in Canada. Canada Diseases Weekly Report, 14(43), 197-200.

Elmslie, K., Ricketts, M., & Mulligan, L. (1990). Guidelines for counselling persons who have had an occupational exposure to human immunodeficiency virus. Canada Diseases Weekly Report, 16S2(Suppl.), 1-3.

Emanuel, E. J. (1988). Do physicians have an obligation to treat patients with AIDS? New England Journal of Medicine, 318, 1686-1690.

Epstein, S., & Fenz, W. D. (1965). Steepness of approach and avoidance gradients in humans as a function of experience: Theory and experiment. Journal of Experimental Psychology, 70, 1-12.

Fahrner, R. (1988). Nursing interventions. In A. Lewis (Ed.), Nursing care of the person with AIDS/ARC (pp. 115-130). Rockville, MD: Aspen.

Fairlie, H. (1989, January 23). America's morbid aversion to risk: Fear of living. The New Republic, pp. 14, 16, 17, 19.

Farmer, P., & Kleinman, A. (1989). AIDS as human suffering. Daedalus, 118(2), 135-160.

Federal Centre for AIDS (Canada). (1990). AIDS surveillance in Canada. Canada Diseases Weekly Report, 16(20), 93-95.

Feinblum, S. (1986). Pinning down the psychosocial dimensions of AIDS. Nursing and Health Care, 7, 255-257.

Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7, 117-140.

Festinger, L. (1957). A theory of cognitive dissonance. Evanston, IL: Row, Peterson.

Field, P.A., & Morse, J. (1985). Nursing research: The application of qualitative approaches. Rockville, MD: Aspen.

Fischhoff, B., Slovic, P., & Lichtenstein, S. (1981). The public vs. the experts: Perceived vs. actual disagreements about risks. In H. Kunreuther (Ed.), Risk: A seminar series (pp. 171-193). Laxenburg, Austria: ITASA.

Fischhoff, B., Slovic, P., Lichtenstein, S., Read, S., & Combs, B. (1978). How safe is safe enough? A psychometric study of attitudes towards technological risks and benefits. Policy Sciences, 9, 127-152.

Fisher, W., Grenier G., Watters, W., Lamont, J., Cohen, M., & Askwith, J. (1988). Students' sexual knowledge, attitudes toward sex, and willingness to treat sexual concerns.

Journal of Medical Education, 63, 379-385.

Fitchen, J., Heath, J., & Fessenden-Raden, J. (1987). Risk perception in community context: A case study. In B. Johnson & V. Covello (Eds.), The social and cultural construction of risk (pp. 31-54). Boston: D. Reidel.

Fitzpatrick, J. S. (1980). Adapting to danger: A participant observation study of an underground mine. Sociology of Work and Occupations, 7(2), 131-158.

Flaskerud, J. H. (1987). AIDS: Psychosocial aspects. Journal of Psychosocial Nursing, 25(12), 9-16.

Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. Journal of Personality and Social Psychology, 46, 839-852.

Folkman, S., & Lazarus, R. (1980). An analysis of coping in a middle-aged community sample. Journal of Health and Social Behavior, 21, 219-239.

Folkman, S., & Lazarus, R. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. Journal of Personality and Social Psychology, 48, 150-170.

Folkman, S., & Lazarus, R. S. (1988). The relationship between coping and emotion: Implications for theory and research. Social Science Medicine, 26, 309-317.

Folkman, S., Lazarus, R., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. Journal of Personality and Social Psychology, 50, 992-1003.

Ford, J. S., & Reutter, L. I. (1990). Ethical dilemmas associated with small samples. Journal of Advanced Nursing, 15, 187-191.

Fowlkes, M., & Miller, P. (1987). Chemicals and community at Love Canal. In B. Johnson & V. Covello (Eds.), The social and cultural construction of risk (pp. 55-78). Boston: D. Reidel.

Fox, R. C. (1957). Training for uncertainty. In R. K. Merton, G. G. Reader, & P. Kendall (Eds.), The student-physician (pp. 207-241). Cambridge, MA: Harvard University Press.

Fox, R. C., Aiken, L. H., & Messikomer, C. M. (1990). The culture of caring: AIDS and the nursing profession. Milbank Quarterly, 68(Suppl. 2), 226-256.

Frankl, V. E. (1963). Man's search for meaning: An introduction to logotherapy. New York: Washington Square Press.

Freudenburg, W. R. (1988). Perceived risk, real risk: Social science and the art of probabilistic risk assessment. Science, 242, 44-49.

Friedland, G. H. (1989). Clinical care in the AIDS epidemic. Daedalus, 118(2), 59-83.

Friedman, K., Bischoff, H., Davis, R., & Person, A. (1982, July). Samaritan blues. Psychology Today, pp. 26, 28.

Friedson, E. (1971). Profession of medicine: A study of the sociology of applied knowledge. New York: Harper & Row.

Gardner, K. (1988). The hospice response to AIDS. Quality Review Bulletin, June, 198-200.

Geis, S. & Fuller, R. (1985). The impact of the first gay AIDS patient on hospice staff. The Hospice Journal, 1(3), 17-37.

Geis, S., & Fuller, R. (1986). Hospice staff response to fear of AIDS. In D. Feldman & T. Johnson (Eds.), The social dimensions of AIDS: Method and theory (pp. 235-243). New York: Praeger.

Gerberding, J. L. (1988). Transmission of HIV to health care workers: Risk and risk reduction. Bulletin of the New York Academy of Medicine, 64(6), 491-497.

Gerberding, J. L. (1989). Occupational HIV transmission: Risk reduction. Occupational Medicine: State of the Art Reviews, 4(Special Issue), 21-24.

Gerbert, B., Maguire, B., Badner, V., Altman, D., & Stone, G. (1988). Why fear persists: Health care professionals and AIDS. Journal of the American Medical Association, 260, 3481-3483.

Gerbert, B., Sumser, J., Chamberlin, K., Maquire, B.T., Greenblatt, R. M., & McMaster, J. R. (1989). Dental care experience of HIV-positive patients. Journal of the American Dental Association, 119, 601-603.

Glaser, B. (1978). Theoretical sensitivity. Mill Valley, CA: The Sociology Press.

Glaser, B., & Strauss, A. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine.

Glasner, P. D., & Kaslow, R. A. (1990). The epidemiology of human immunodeficiency virus infection. Journal of Consulting and Clinical Psychology, 58, 13-21.

Glowinkowski, S. P., & Cooper, C. L. (1985). Current issues in organizational stress research. Bulletin of the British Psychological Society, 38, 212-216.

Goffman, E. (1959). The presentation of self in everyday life. Garden City, NY: Doubleday Anchor Books.

Goffman, E. (1963). Stigma. Englewood Cliffs, NJ: Prentice-Hall.

Golin, S., Terrell, F., Weitz, J., & Drost, P. (1979). The illusion of control among depressed patients. Journal of Abnormal Psychology, 88, 454-457.

Gordin, F. M., Willoughby, A. D., Levine, L. A., Gurel, L., & Neill, K. M. (1987). Knowledge of AIDS among hospital workers: Behavioral correlates and consequences. AIDS, 1, 183-188.

Gottlieb, B. H. (1979). The primary group as supportive milieu: Applications to community psychology. American Journal of Community Psychology, 7, 469-480.

Govoni, L. A. (1988). Psychosocial issues of AIDS in the nursing care of homosexual men and their significant others. Nursing Clinics of North America, 23, 749-765.

Gray-Toft, P., & Anderson, J. (1981). Stress among hospital nursing staff: Its causes and effects. Social Science and Medicine, 15A, 639-647.

Gray-Toft, P., & Anderson, J. (1983). A hospital staff support program: Design and evaluation. International Journal of Nursing Studies, 20, 137-147.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. Academy of Management Review, 10, 76-88.

Greenhaus, J., & Parasuraman, S. (1986). A work-nonwork interactive perspective of stress and its consequences. Journal of Organizational Behavior Management, 8(2), 37-60.

Haas, J. (1977). Learning real feelings: A study of high steel ironworkers' reactions to fear and danger. Sociology of Work and Occupations, 4(2), 147-170.

Haber, L. D. & Smith, R. T. (1971). Disability and deviance: Normative adaptations of role behavior. American Sociological Review, 36, 87-97.

Hale, A. R. (1987). Subjective risk. In W. T. Singleton & J. Hovden (Eds.), Risk and decisions (pp. 67-85). New York: John Wiley and Sons.

Health & Welfare, Canada (1987). Recommendations for prevention of HIV transmission in health-care settings. Canada Diseases Weekly Report, 13S3, 1-10.

Heider, F. (1958). The psychology of interpersonal relations. New York: Wiley.

Henderson, D. K. (1989). Perspectives on the risks for occupational transmission of HIV-I in the health-care workplace. Occupational Medicine: State of the Art Reviews, 4(Special Issue), 7-12.

Herek, G. M., & Glunt, E. K. (1988). An epidemic of stigma: Public reactions to AIDS. American Psychologist, 43, 886-891.

Higgins, P. C. (1980). Outsiders in a hearing world: A sociology of deafness. Beverly Hills, CA: Sage.

Hilbourne, J. (1973). On disabling the normal. British Journal of Social Work, 3, 497-504.

Hochschild, A. R. (1979). Emotion work, feeling rules, and social structure. American Journal of Sociology, 85, 551-575.

Hochschild, A. R. (1983). The managed heart: The commercialization of human feeling. Berkeley: University of California Press.

Hoffman, B. F., Arthurs, K., Lunn, S., Meyers, L., Trimnell, J., & Farcnik, K. (1989). AIDS: Clinical and ethical issues on a psychiatric unit. Canadian Journal of Psychiatry, 34, 847-851.

Holahan, C. K., & Gilbert, L. A. (1979). Conflict between major life roles: Women and men in dual-career couples. Human Relations, 32, 451-467.

Holmes, T., & Rahe, R. (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-225.

Horowitz, M. J. (1983). Psychological response to serious life events. In S. Breznitz (Ed.), The denial of stress (pp. 129-159). New York: International Universities Press.

House, J. (1981). Work stress and social support. Menlo Park, CA: Addison-Wesley.

Houston, B. K. (1987). Stress and coping. In C. R. Snyder & C. E. Ford (Eds.), Coping with negative life events (pp. 373-399). New York: Plenum Press.

Hughes, E. (1945). Dilemmas and contradictions of status. American Journal of Sociology, 50, 353-359.

Hughes, E. C. (1958). Men and their work. Glencoe, IL: Free Press.

Hurley, P. M. (1989). Human immunodeficiency virus and mental health: Meeting the needs of health professionals. Archives of Psychiatric Nursing, 3(5), 277-280.

Imperato, P., Feldman, J., Nayeri, K., & Dehovitz, J. (1988). Medical students' attitudes towards caring for patients with AIDS in a high incidence area. New York State Journal of Medicine, 88, 223-227.

Jacobson, S. (1983). Stresses and coping strategies of neonatal intensive care unit nurses. Research in Nursing and Health, 6, 33-40.

Jagger, J., Hunt, E., Brand-Elnaggar, J., & Pearson, R. (1988). Rates of needlestick injury caused by various devices in a university hospital. New England Journal of Medicine, 319, 284-288.

Janis, I. L. (1967). Effects of fear arousal on attitude change: Recent developments in theory and experimental research. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology, 3 (pp. 166-224). New York: Academic Press.

Janis, I. L. (1982). Reactions to air war: Fear and coping mechanisms. In I. L. Janis (Ed.), Stress, attitudes, and decisions: Selected papers (pp. 39-56). New York: Praeger. (Original work published 1951).

Janis, I. L. (1982). Psychological effects of warnings. In I. L. Janis (Ed.), Stress, attitudes, and decisions: Selected papers (pp. 57-91). New York: Praeger. (Original work published 1962).

Janis, I. L. (1982). Adaptive personality changes resulting from stressful episodes. In I. L. Janis (Ed.), Stress, attitudes, and decisions: Selected papers (pp. 127-147). New York: Praeger. (Original work published 1969).

Janis, I. L., & Mann, L. (1977). Decision making: A psychological analysis of conflict, choice, and commitment. New York: Free Press.

Janoff-Bulman, R. (1979). Characterological versus behavioral self-blame: Inquiries into depression and rape. Journal of Personality and Social Psychology, 37, 1798-1809.

Janoff-Bulman, R., & Frieze, I. H. (1983). A theoretical perspective for understanding reactions to victimization. Journal of Social Issues, 39(2), 1-17.

Janoff-Bulman, R., & Timko, C. (1987). Coping with traumatic life events: The role of denial in light of people's assumptive worlds. In C. R. Snyder & C. E. Ford (Eds.), Coping with negative life events (pp. 135-159). New York: Plenum Press.

Jermier, J. M., Gaines, J., & McIntosh, N. J. (1989). Reactions to physically dangerous work: A conceptual and empirical analysis. Journal of Organizational Behavior, 10, 15-33.

Johnson, B. B., & Covello, V. T. (Eds.). (1987). The social and cultural construction of risk: Essays on risk selection and perception. Boston: D. Reidel.

Jones, E. E., Farina, A., Hastorf, A. H., Markus, H., Miller, D. T., & Scott, R. A. (1984). Social stigma: The psychology of marked relationships. New York: W. H. Freeman.

Jones, E. E., & Nisbett, R. E. (1971). The actor and the observer: Divergent perceptions of the causes of behavior. Morristown, NJ: General Learning Press.

Kahn, D. L., & Steeves, R. H. (1988). Caring and practice: Construction of the nurses' world. Scholarly Inquiry for Nursing Practice: An International Journal, 2(3), 201-216.

Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. American Psychologist, 39, 341-350.

Kanter, R. M. (1977). Work and family in the United States. New York: Russell Sage Foundation.

Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), Nebraska symposium on motivation (pp. 192-238). Lincoln, Nebraska: University of Nebraska Press.

Kelly, J. A., St. Lawrence, J. S., Hood, H. V., Smith, S., & Cook, D. J. (1988). Nurses' attitudes toward AIDS. Journal of Continuing Education in Nursing, 19 (2), 78-83.

Kelly, J. A., St. Lawrence, J. S., Smith, S., Hood, H. V., & Cook, D. J. (1987). Stigmatization of AIDS patients by physicians. American Journal of Public Health, 77, 789-791.

Kerr, C. I., & Horrocks, M. J. (1990). Knowledge, values, attitudes, and behavioral intenet of Nova Scotia nurses toward AIDS and patients with AIDS. Canadian Journal of Public Health, 81, 125-128.

Kobasa, S., Maddi, S., & Courington, S. (1981). Personality and constitution as mediators in the stress-illness relationship. Journal of Health and Social Behavior, 22, 368-378.

Kopelman, L. (1988). The punishment concept of disease. In C. Pierce & D. Vandeveer (Eds.), AIDS: Ethics and public policy (pp. 49-55). Belmont, CA: Wadsworth.

Kowalewski, M. R. (1990). Religious constructions of the AIDS crisis. Sociological Analysis, 51 (1), 91-96.

Krasnik, A., Fouchard, J. R., Bayer, T., & Keiding, N. (1990). Health workers and AIDS: Knowledge, attitudes and experiences as determinants of anxiety. Scandinavian Journal of Social Medicine, 18(2), 103-113.

Kroes, W. H., Margolis, B. L., & Hurrell, J. J. (Jr.). (1974). Job stress in policemen. Journal of Police Science and Administration, 2, 145-155.

Kuhn, T. (1970). The structure of scientific revolutions (3rd ed.). Chicago: University of Chicago Press.

Langer, E. J. (1975). The illusion of control. Journal of Personality and Social Psychology, 32, 311-328.

LaRocco, J. M., House, J. S., & French, J. R. P., Jr. (1980). Social support, occupational stress, and health. Journal of Health and Social Behavior, 21, 202-218.

LaRocco, J. M., & Jones, A. P. (1978). Coworker and leader support as moderators of stress-strain relationships in work situations. Journal of Applied Psychology, 63, 629-634.

Larossa, R., Bennett, L. A., & Gelles, R. J. (1981). Ethical dilemmas in qualitative family research. Journal of Marriage and the Family, 43, 303-313.

Lazarus, R. S. (1974). Psychological stress and coping in adaptation and illness. International Journal of Psychiatry in Medicine, 5, 321-333.

Lazarus, R. S. (1983). The costs and benefits of denial. In S. Breznitz (Ed.), The denial of stress. New York: International University Press.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal and coping. New York: Springer.

LeBourdais, E. (1989). Hopelessness and helplessness: Treating the doctors who treat AIDS patients. Canadian Medical Association Journal, 140, 440-443.

LeCompte, M., & Goetz, J. (1982). Problems of reliability and validity in ethnographic research. Review of Educational Research, 52(1), 31-60.

Lee, Cynthia. (1986). Professionals in medical settings: The research evidence in the 1980's. Journal of Organizational Behavior Management, 8(2), 195-213.

Leininger, M. M. (1984). Care: The essence of nursing and health. Thorofare, NJ: Slack.

Lerner, M. J. (1980). The belief in a just world: A fundamental delusion. New York: Plenum.

Lessor, R., & Jurich, K. (1986). Ideology and politics in the control of contagion: The social organization of AIDS care. In D. Feldman & T. Johnson (Eds.), The social dimension of AIDS (pp. 245-259). New York: Praeger.

Levy, J. A., Kaminsky, L. S., Morrow, W. J. W., Steimer, K., Luciw, P., Dina, D., Hoxie, J., & Oshiro, L. (1985). Infection by the retrovirus associated with the acquired immunodeficiency syndrome. Annals of Internal Medicine, 103, 694-699.

Lichtenstein, S., Slovic, P., Fischhoff, B., Layman, M., & Combs, B. (1978). Judged frequency of lethal events. Journal of Experimental Psychology: Human Learning and Memory, 4, 551-578.

Light, D. W. (1979). Uncertainty and control in professional training. Journal of Health and Social Behavior, 20, 310-322.

Light, D. W. (1988). Toward a new sociology of medical education. Journal of Health and Social Behavior, 29, 307-322.

Link, R. N., Feingold, A., Charap, M., Freeman, K., & Shelov, S. (1988). Concerns of medical and pediatric house officers about acquiring AIDS from their patients. American Journal of Public Health, 78, 455-459.

Loewy, E. (1986). Duties, fears and physicians. Social Science Medicine, 22, 1363-1366.

Lofland, J., & Lofland, L. (1984). Analyzing social settings: A guide to qualitative observation and analysis (2nd ed.). Belmont, CA: Wadsworth.

Macks, J. (1988). Women and AIDS: Countertransference issues. Social Casework, 69, 340-347.

Mahler, D. M. (1986). When to obtain informed consent in behavioral research: A study of mother-infant bonding. *A Review of Human Science Research*, *8*(3), 7-11.

Malinowski, B. (1948). *Magic, science, and religion*. Garden City, NY: Doubleday.

Marcelissen, F., Winnubst, J., Buunk, B., & deWolff, C. (1988). Social support and occupational stress: A causal analysis. *Social Science Medicine*, *26*, 365-373.

Marshall, J. (1980). Stress amongst nurses. In C. Cooper & J. Marshall (Eds.), *White collar and professional stress* (pp. 19-59). Toronto: John Wiley.

Marshall, J. (1986). Towards ecological understanding of occupational stress. *International Review of Applied Psychology*, *35*, 271-286.

Maslach, C. (1982). *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice-Hall.

Matta, H., Thompson, A. M., Rainey, J. B. (1988). Does wearing two pairs of gloves protect operating theatre staff from skin contamination? *British Medical Journal*, *297*, 597-598.

Mayer, J. E., & Rosenblatt, A. (1975). Encounters with danger: Social workers in the ghetto. *Sociology of Work and Occupations*, *2*(3), 227-245.

McCracken, G. (1988). *The long interview*. London: Sage.

McCray, E. (1986). Occupational risk of the acquired immunodeficiency syndrome among health care workers. *New England Journal of Medicine*, *314*, 1127-1132.

Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.

Mechanic, D. (1962). *Students under stress*. New York: Free Press.

Mechanic, D. (1974). Social structure and personal adaptation: Some neglected dimensions. In G. V. Coelho, D. Hamburg, & J. E. Adams (Eds.), *Coping and adaptation* (pp. 32-44). New York: Basic Books.

Meisenhelder, J. B., & LaCharite, C. (1989). Fear of contagion: A stress response to acquired immunodeficiency syndrome. *Advances in Nursing Science*, *11*(2), 29-38.

Mejta, C., Denton, E., Krems, M. E., Hiatt, R. (1988). Acquired immunodeficiency syndrome (AIDS): A survey of substance abuse clinic directors' and counsellors' perceived knowledge, attitudes and reactions. *The Journal of Drug Issues*, *18*(3), 403-419.

Merton, R. K. (1957). Some preliminaries to a sociology of medical education. In R. K. Merton, G. G. Reader, P. L. Kendall (Eds.), *Student physician: Introductory studies in the sociology of medical education* (pp. 3-79). Cambridge, MA: Harvard University Press.

Miles, M., & Huberman, A. M. (1984). *Qualitative data analysis*. Beverly Hills: Sage.

Miller, D. T., & Porter, C. A. (1983). Self-blame in victims of violence. *Journal of Social Issues*, *39*(2), 139-152.

Miller, D. T., & Ross, M. (1975). Self-serving biases in the attribution of causality: Fact or fiction? *Psychological Bulletin*, *82*, 313-325.

Mishel, M. (1980). Perceived ambiguity of events associated with the experience of illness and hospitalization: Development and testing of a measurement (Doctoral dissertation, Claremont Graduate School). Dissertation Abstracts International, 1981, 41, 32358-3236B. (University Microfilms No. 8103821).

Moch, S. D. (1988). Towards a personal control/uncontrol balance. Journal of Advanced Nursing, 13, 119-123.

Mor, V., & Laliberte, L. (1984). Burnout among hospice staff. Health and Social Work, 9, 274-283.

Murray, T. H. (1990). The poisoned gift: AIDS and blood. Milbank Quarterly, 68(Suppl. 2), 205-225.

Musil, C. M., & Abraham, I. L. (1986). Coping, thinking, and mental health nursing: Cognitions and their application to psychosocial intervention. Issues in Mental Health Nursing, 8, 191-201.

Nelkin, D., & Brown, M. S. (1984). Workers at risk: Voices from the workplace. Chicago: University of Chicago Press.

Nelkin, D., & Gilman, S. L. (1988). Placing blame for devastating disease. Social Research, 55(3), 361-377.

Nelkin, D., & Hilgartner, S. (1986). Disputed dimensions of risk: A public school controversy over AIDS. Milbank Quarterly, 64(Suppl. 1), 119-142.

Nelkin, D., Willis, D. P., & Parris, S. V. (1990). Introduction. Milbank Quarterly, 68 (Suppl. 1), 1-9.

Nielsen, C. (1988). AIDS: Attitudes and risks in the occupational setting. Australian Journal of Advanced Nursing , 5(2), 46-52.

Norbeck, J. S. (1985). Types and sources of social support for managing job stress in critical care nursing. Nursing Research, 34, 225-230.

Northcott, H. C., & Reutter, L. I. (1991). Public opinion regarding AIDS policy: Fear of contagion and attitude toward homosexual relationships. Canadian Journal of Public Health, 82, 87-91.

O'Donnell, L., & O'Donnell, C. (1987). Hospital workers and AIDS: Effect of inservice education on knowledge and perceived risks and stresses. New York State Journal of Medicine, 87, 278-280.

O'Donnell, L., O'Donnell, C., Pleck, J., Snarey, J., & Rose, R. (1987). Psychosocial responses of hospital workers to acquired immune deficiency syndrome (AIDS). Journal of Applied Social Psychology, 17, 269-285.

Otway, H., & Pahner, P. (1980). Risk assessment. In J. Dowie & P. Lefrere (Eds.), Risk and chance (pp. 148-160). Milton Keynes, England: The Open University Press.

Otway, H. J., & von Winterfeldt, D. (1981). Risk management and acceptable risk criteria. In H. Kunreuther (Ed.), Risk: A seminar series (pp. 125-143). Laxenburg, Austria: International Institute for Applied Systems Analysis.

Paine, S., & Briggs, D. (1988). Knowledge and attitudes of Victorian medical practitioners in relation to the acquired immunodeficiency syndrome. Medical Journal of Australia, 148, 221-225.

Parsons, T. (1951). The social system. Glencoe, IL: The Free Press.

Pearlin, L., Lieberman, M., Menaghan, E., & Mullan, J. (1981). The stress process. Journal of Health and Social Behavior, 22, 337-356.

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. Journal of Health and Social Behavior, 19 , 2-21.

Pellegrino, E. D. (1989). HIV infection and the ethics of clinical care. The Journal of Legal Medicine, 10(1), 29-46.

Peloquin, S. M. (1990). AIDS: Toward a compassionate response. American Journal of Occupational Therapy, 44, 271-278.

Perloff, L. S. (1983). Perceptions of vulnerability to victimization. Journal of Social Issues, 39(2), 41-61.

Perloff, L. S. (1987). Social comparison and illusions of invulnerability to negative life events. In C. R. Snyder & C. E. Ford (Eds.), Coping with negative life events (pp. 217-241). New York: Plenum Press.

Peterson, L. M. (1989). AIDS: The ethical dilemma for surgeons. Law, Medicine, and Health Care, 17, 139-144.

Pettigrew, T. F. (1979). The ultimate attribution error: Extending Allport's cognitive analysis of prejudice. Personality and Social Psychology Bulletin, 5, 461-476.

Poggie, J. J. (1980). Ritual adaptation to risk and technological development in ocean fisheries: Extrapolation from New England. Anthropological Quarterly, 53, 122-129.

Polan, H. J., & Amchin, J. (1987). Treating AIDS patients. Hospital and Community Psychiatry, 38 , 531-32.

Pringle, D. M., Mouseau, J. M. D., Mohide, E., Coates, R., & Weaver, L. (1988). Visiting nurses' and their male partners' knowledge, attitudes, and concerns regarding the care of patients with AIDS. Ottawa, Canada: VON Canada.

Pryor, J. G., Reeder, G. D., & Vinacco, R. (Jr.) (1989). The instrumental and symbolic functions of attitudes toward persons with AIDS. Journal of Applied Social Psychology, 19, 377-404.

Rachman, S. J. (1978). Fear and courage. San Francisco: W. H. Freeman.

Ray, E., Nichols, M., & Perritt, L. (1987). A model of job stress and burnout. The Hospice Journal, 3(2/3), 3-28.

Rayner, S. (1987). Risk and relativism in science for policy. In B. B. Johnson & V. T. Covello (Eds.), The social and cultural construction of risk (pp. 5-23). Boston: D. Reidel.

Reed, P., Wise, T., & Mann, L. (1984). Nurses' attitudes regarding acquired immunodeficiency syndrome (AIDS). Nursing Forum, 21, 153-156.

Reisman, E. C. (1988). Ethical issues confronting nurses. Nursing Clinics of North America, 23 , 789-802.

Richardson, J., Lochner,T., MacGuigan, K., & Levine, A. (1987). Physician attitudes and experience regarding the care of patients with acquired immunodeficiency syndrome(AIDS) and related disorders(ARC). Medical Care , 25(8), 675-685.

Rook, K. (1984). Research on social support, loneliness, and social isolation: Toward an integration. In P. Shaver (Ed.), Review of Personality and Social Psychology: Vol. 5 (pp. 239-264). Beverly Hills, CA: Sage.

Rosenberg, C. E. (1989). What is an epidemic? AIDS in historical perspective. Daedalus, 118(2), 1-17.

Ross, J. W. (1988). Ethics and the language of AIDS. In C. Pierce & D. Vandeveer (Eds.), AIDS: Ethics and public policy (pp.39-48). Belmont, CA: Wadsworth.

Ross, M., & Fletcher, G. J. O. (1985). Attribution and social perception. In G. Lindzey & E. Aronson (Eds.), The handbook of social psychology (3rd. ed.) 1 (pp. 73-122). New York: Random House.

Ross, M. W., & Hunter, C. E. (1989). Reactions to AIDS patients [Letter to the editor]. Hospital and Community Psychiatry, 40, 1077.

Roth, J. (1957). Ritual and magic in the control of contagion. American Sociological Review , 22, 310-314.

Rothbaum, F., Weisz, J. R., & Snyder, S. (1982). Changing the world and changing the self: A two-process model of perceived control. Journal of Personality and Social Psychology, 42, 5-37.

Rothman, D. J. (1987). Public policy and risk assessment in the AIDS epidemic. In J. Griggs (Ed.), AIDS: Public policy dimensions (pp. 57-68). New York: United Hospital Foundation.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80(1), 1-28.

Royal Society. (1983). Risk assessment: A study group report. London: Royal Society.

Rubinow, D. (1984). The psychosocial impact of AIDS. Topics in Clinical Nursing, 6(2), 26-30.

Sarason, I. & Johnson, J. (1979). Life stress, organizational stress, and job satisfaction. Psychological Reports, 44, 75-79.

Sarvela, P. D., & Moore, J. R. (1989). Nursing home employee attitudes toward AIDS. Health Values, 13(2), 11-16.

Scambler, G. (1984). Perceiving and coping with stigmatizing illness. In R. Fitzpatrick, J. Hinton, S. Newman, G. Scambler, and J. Thompson (Eds.), The experience of illness (pp. 203-226). London: Tavistock.

Schachter, S. (1959). The psychology of affiliation. Stanford, CA: Stanford University Press.

Schaffner, B. (1986). Reactions of medical personnel and intimates to persons with AIDS. Psychotherapy Patient, 2(4), 67-80.

Schanck, R. L. (1932). A study of a community and its groups and institutions conceived of as behaviors of individuals. Psychological Monographs, 43(2, Whole No. 195).

Schecter, W. P. (1989). HIV transmission to surgeons. Occupational Medicine: State of the Art Reviews, 4(Special Issue), 65-69.

Scheppele, K. L., & Bart, P. B. (1983). Through women's eyes: Defining danger in the wake of sexual assault. Journal of Social Issues, 39(2), 63-81.

Schlenker, B. R. (1987). Threats to identity: Self-identification and social stress. In C. R. Snyder & C. E. Ford (Eds.), Coping with negative life events (pp. 273-321). New York: Plenum Press.

Schwartz, H. D. (1988). Further thoughts on a "sociology of acceptance" for disabled people. Social Policy, 19(2), 36-39.

Schwartz, H., & Jacobs, J. (1979). Qualitative sociology. New York: Free Press.

Scruton, D. L. (1986). The anthropology of an emotion. In D. L. Scruton (Ed.), Sociophobics: The anthropology of fear (pp. 7-49). Boulder, CO: Westview Press.

Searle, E. (1987). Knowledge, attitudes, and behavior of health professionals in relation to AIDS. The Lancet, 1,1987, 26-28.

Seers, A., McGee, G. W., Serey, T. T., & Graen, G. B. (1983). The interaction of job stress and social support: A strong inference investigation. Academy of Management Journal, 26, 273-284.

Seidel, J. V., & Clark, J. A. (1984). THE ETHNOGRAPH [computer program]. Littleton: CO: University of Colorado.

Seligman, M. E. P. (1975). Helplessness: On depression, development, and death. San Francisco: Freeman.

Selye, H. (1956). The stress of life. New York: McGraw-Hill.

Sharlin H. (1987). Macro-risks, micro-risks, and the media: The EDB case. In B. Johnson & V. Covello (Eds.), The social and cultural construction of risk: Essays on risk selection and perception (pp. 183-197). Boston: D. Reidel.

Shaver, K. G. (1970). Defensive attribution effects of severity and relevance on the responsibility assigned for an accident. Journal of Personality and Social Psychology, 14, 101-113.

Shaver, P., & Klinnert, M. (1982). Schachter's theories of affiliation and emotion: Implications of developmental research. In L. Wheeler (Ed.), Review of Personality and Social Psychology: Vol. 3 (pp. 37-72). Beverly Hills, CA: Sage.

Short, J. (1984). The social fabric of risk: Toward the social transformation of risk analysis. American Sociological Review, 49, 711-725.

Shott, S. (1979). Emotion and social life: A symbolic interactionist analysis. American Journal of Sociology, 84, 1317-1334.

Shulman, L., & Mantell, J. (1988). The AIDS crisis: A United States health care perspective. Social Science Medicine, 26, 979-988.

Siegel, K., Levine, M. P., Brooks, C., & Kern, R. (1989). The motives of gay men for taking or not taking the HIV antibody test. Social Problems, 36(4), 368-383.

Silver, R. L., & Wortman, C. B. (1980). Coping with undesirable life events. In M. E. P. Seligman & J. Garber (Eds.), Human helplessness: Theory and application (pp. 279-340). London: Academic Press.

Simmons-Alling, S. (1984). AIDS: Psychosocial needs of the health care worker. Topics in Clinical Nursing, 6(2), 31-37.

Simon, H. A. (1955). A behavioral model of rational choice. Quarterly Journal of Economics, 99, 99-118.

Skolnick, J. H. (1986). Justice without trial: Law enforcement in democratic society (2nd ed.). New York: MacMillan.

Slovic, P., Fischhoff, B., & Lichtenstein, S. (1980). Facts and fears: Understanding perceived risk. In R. Schwing & W. Albers (Eds.), Societal risk assessment: How safe is safe enough? (pp. 181-213). New York: Plenum.

Smith, A. C. (III), & Kleinman, S. (1989). Managing emotions in medical school: Students' contacts with the living and the dead. Social Psychology Quarterly, 52(1), 56-69.

Smithson, R. (1988). Public and health staff knowledge about AIDS. Community Medicine, 10(3), 221-227.

Sontag, S. (1977). Illness as metaphor. New York: Random House.

Sontag, S. (1989). AIDS and its metaphors. New York: Farrar, Strauss, and Giroux.

Sowa, P. E., & Miller, D. (1989). Administrative response to issues of health-care worker safety and HIV exposure. Occupational Medicine: State of the Art Reviews, 4(Special Issue), 45-50.

Steinbrook, R., Lo, B., Tirpack, J., Dilley, J., & Volberding, P. (1985). Ethical dilemmas in caring for patients with the acquired immunodeficiency syndrome. Annals of Internal Medicine, 103, 787-790.

Stern, P. N. (1980). Grounded theory methodology: Its uses and processes. Images, 12(1), 20-23.

Stevens, L. A., & Muskin, P. R. (1987). Techniques for reversing the failure of empathy towards AIDS patients. Journal of the American Academy of Psychoanalysis, 15(4), 539-551.

Stewart, M. J. (1989). Social support: Diverse theoretical perspectives. Social Science Medicine, 28, 1275-1282.

Stock, S. R., Gafori, A., & Bloch, R. F. (1990). Universal precautions to prevent HIV transmission to health care workers: An economic analysis. Canadian Medical Association Journal, 142, 937-946.

Strauss, A., Fagerhaugh, S., Suczek, B., & Wiener, C. (1982). Sentimental work in the technological hospital. Sociology of Health and Illness, 4, 254-278.

Strickler, A. C. (1988). Occupational exposure to HIV infection among health-care workers at the Toronto General Hospital. Canada Diseases Weekly Report, 14(32), 141-146.

Sumser, J., Gerbert, B., Maquire, B. T., & Todd, M. (1990). Are nurse practitioners prepared for the AIDS epidemic? Nurse Practitioner, 15(4), 50-55.

Tarr, J., & Jacobson, C. (1987). Environmental risk in historical perspective. In B. Johnson & V. Covello (Eds.), The social and cultural construction of risk (pp. 317-344). Boston: D. Reidel.

Taylor, K. M., Shapiro, M., Skinner, H. A., Eakin, J., & Kelner, M. (1989). Understanding physicians' responses to AIDS. Canadian Medical Association Journal, 140, 597-602.

Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. American Psychologist, 38, 1161-1173.

Taylor, S. E., Wood, J. V., & Lichtman, R. R. (1983). It could be worse: Selective evaluation as a response to victimization. Journal of Social Issues, 39(2), 19-40.

Thoits, P. A. (1984). Coping, social support, and psychological outcomes: The central role of emotion. In P. Shaver (Ed.), Review of Personality and Social Psychology: Vol. 5 (pp. 219-238). Beverly Hills, CA: Sage.

Thoits, P. A. (1985). Self-labelling processes in mental illness: The role of emotional deviance. American Journal of Sociology, 91, 221-249.

Thomas, W. I. (1928). The child in America. New York: Knopf.

Thompson, S. (1981). Will it hurt less if I can control it? A complex answer to a simple question. Psychological Bulletin, 90(1), 89-101.

Treiber, F., Shaw, D., Malcolm, R. (1987). Acquired immune deficiency syndrome: Psychological impact on health personnel. Journal of Nervous and Mental Disease, 175(8), 496-499.

Tringo, J. L. (1970). The hierarchy of preference toward disability groups. Journal of Special Education, 4, 295-306.

Turner, J., Gauthier, D., Ellison, K., & Greiner, D. (1988). Nursing and AIDS--Knowledge and attitudes. American Association of Occupational Health Nurses, 36, 274-278.

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185, 1124-1131.

Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. Science, 211, 453-458.

Tyler, T. R. (1980). Impact of directly and indirectly experienced events: The origin of crime-related judgments and behaviors. Journal of Personality and Social Psychology, 39, 13-28.

Vachon, M. L. S., Lyall, W. A. L., & Freeman, S. J. J. (1978). Measurement and management of stress in health professionals working with advanced cancer patients. Death Education, 1, 365-375.

Vaillant, G. (1977). Adaptation to life. Boston: Little, Brown.

Valenti, W. (1986). Survey of hospital personnel on the understanding of the acquired immunodeficiency syndrome. American Journal of Infection Control, 14(2), 60-63.

Van Servellen, G., Lewis, C., & Leake, B. (1988). Nurses' responses to the AIDS crisis: Implications for continuing education programs. Journal of Continuing Education in Nursing, 19(1), 4-8.

Vlek, C., & Stallen, P. (1981). Judging risks and benefits in the small and in the large. Organizational Behavior and Human Performance, 28, 235-271.

Wallack, J. J. (1989). AIDS anxiety among health care professionals. Hospital and Community Psychiatry, 40, 507-510.

Walster, E. (1966). Assignment of responsibility for an accident. Journal of Personality and Social Psychology, 3, 73-79.

Watson, J. (1985). Nursing: Human science and human care. Norwalk, CT: Appleton-Century-Crofts.

Weber, M. (1978). The nature of social action. In W. G. Runciman (Ed.), and E. Matthews (Trans.), Max Weber: Selections in translation. Cambridge, MA: Cambridge University Press. (Original work published 1922).

Weinstein, N. D. (1987). Unrealistic optimism about susceptibility to health problems: Conclusions from a community-wide sample. Journal of Behavioral Medicine , 10, 481-500.

Weisman, A. D. (1972). On dying and denying. New York: Behavioral Publications.

Weitz, R. (1989). Uncertainty and the lives of persons with AIDS. Journal of Health and Social Behavior, 30, 270-281.

Wertz, D., Sorenson, J., Liebling, L., Kessler, L., & Heeren, T. (1987). Knowledge and attitudes of AIDS health care providers before and after education programs. Public Health Reports, 102, 248-254.

Wheaton, B. (1985). Models for the stress-buffering functions of coping resources. Journal of Health and Social Behavior, 26, 352-364.

Wheeler, L. (1966). Motivation as a determinant of upward comparison. Journal of Experimental Social Psychology, 1(Suppl. 1), 27-31.

Wiley, K., Heath, L., & Acklin, M. (1988). Care of AIDS patients: Student attitudes. Nursing Outlook, 36, 244-245.

Wiley, K., Heath, L., Acklin, M., Earl, A., & Barnard, B. (1990). Care of HIV-infected patients: Nurses' concerns, opinions, and precautions. Applied Nursing Research, 3(1), 27-33.

Wills, T. (1987). Downward comparison as a coping mechanism. In C. R. Snyder & C. E. Ford (Eds.), Coping with negative life events (pp. 243-268). New York: Plenum Press.

Wolf, Z. R. (1988). Nurses' work: The sacred and the profane. Philadelphia: University of Pennsylvania Press.

Wolfenstein, M. (1957). Disaster: A psychological essay. Glencoe, IL: Free Press.

Wong, P. T. P., & Weiner, B. (1981). When people ask "why" questions, and the heuristics of attributional search. Journal of Personality and Social Psychology, 40, 650-663.

Wormser, G. P., & Joline, C. (1989). Would you eat cookies prepared by an AIDS patient? Postgraduate Medicine , 86(1), 174-184.

Wortman, C. B. (1976). Causal attributions and personal control. In J. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), New directions in attribution research. Vol. 1 (pp. 23-52). Hillsdale, NJ: Erlbaum.

Wortman, C. B. (1983). Coping with victimization: Conclusions and implications for future research. Journal of Social Issues, 39, 195-221.

Wortman, C. B., & Dunkel-Schetter, C. (1979). Interpersonal relationships and cancer: A theoretical analysis. Journal of Social Issues, 35(1), 120-155.

Young, E. W., Koch, P. B., & Preston, D. B. (1989). AIDS and homosexuality: A longitudinal study of knowledge and attitude change among rural nurses. Public Health Nursing , 6, 189-196.

Zajonc, R. B. (1968). Attitudinal effects of mere exposure. Journal of Personality and Social Psychology Monographs Supplement, 9, 1-27.

Zuger, A., & Miles, S. (1987). Physicians, AIDS, and occupational risk. Journal of the American Medical Association, 258, 1924-1928.

APPENDIX A: INTRODUCTORY INFORMATION

DATE

NAME OF RESEARCH DIRECTOR

NAME AND ADDRESS OF FACILITY

Dear _____:

Please find enclosed seven copies of my research proposal, *Coping with the threat of AIDS: Nurses, Significant Others, and the Risk of Contagion*. This research is being conducted as part of the requirements of a PhD in Sociology at the University of Alberta. Ethical clearance has been granted by the Department of Sociology (see attached letter in Appendix of proposal).

I am requesting permission to use the [NAME OF FACILITY] to select nurse informants for the study. At your suggestion, I contacted [NAME], Nursing supervisor on [NAME OF UNIT]. [NAME] was most supportive and helpful, and has spoken to her staff nurses about my research. She suggested that I may wish to involve other units that care for persons with AIDS, and provided me with the names of the nursing supervisors on [NAMES OF FOUR OTHER UNITS]. I have contacted these supervisors and given them preliminary information about my proposed research. I must say that it was very encouraging to find these nurses so interested and helpful.

As I have indicated in my proposal, once I have received clearance from your department, I will discuss with each nursing supervisor the most appropriate way to approach staff nurses about their potential involvement. Several of the supervisors have already indicated that it would be feasible for me to talk with the staff nurses at informal meetings. Additionally, or alternatively, a brief letter of introduction to potential informants may be useful. It has also been suggested that I may also wish to recruit some informants through notices in staff newsletters or posters on bulletin boards, as this may provide access to nurses who care for persons with AIDS infrequently, and are not assigned to any one nursing unit (e.g. float pool).

In terms of times and places to interview nurses, I will have access to office space in the [NAME OF LIBRARY]. This would make it convenient for nurses to be interviewed close to their place of work before/after their work shifts. However, if this is not acceptable, other arrangements will be negotiated (e.g., home visits).

Should you have any questions, please feel free to call me. My office number is 492-5935. If you cannot reach me at that number, please call the main Sociology office at 492-5234, and leave a message for me to contact you.

Thank you for your consideration of this proposal. I look forward to hearing from you.

Sincerely,

Linda Reutter, RN., MSN, PhD Candidate
Department of Sociology
University of Alberta

INTRODUCTORY NOTICE TO INFORMANTS

RESEARCH: Coping with the threat of AIDS

My name is Linda Reutter and I am a doctoral student in the Department of Sociology at the University of Alberta. In my dissertation research I am interested in exploring nurses' experiences in caring for patients with AIDS or those infected with HIV.

I have been given permission by the [DIRECTOR OF NURSING] to talk with nurses at the [NAME OF FACILITY] who have cared for persons with AIDS or HIV-infected individuals. This will involve one or two interviews, each lasting approximately one hour. The interviews will be tape-recorded, and will take place at a time and location that is convenient for you. I have office space at the [NAME OF LIBRARY] that could be used for interviewing before/after your work shift, if this is convenient for you.

The information that you give will be considered confidential and will be used in such a way as to protect your anonymity. Your name will not be included on the tapes and written transcripts and you will not be identified in the dissertation or any publications of the study findings.

While there may be no direct benefits to you from your participation in this study, the information that you provide hopefully will be used to help nurses care for persons with AIDS, and therefore ultimately benefit patients.

If you are willing to talk about your experiences or have questions about the study itself, please call me at the telephone numbers below. Your cooperation and time in participating in this study is greatly appreciated.

Telephone numbers: 433-3171 or 492-5935

NOTICE IN "FLOAT POOL" NEWSLETTER

Nurses who have cared for HIV-infected patients

Volunteers are invited to participate in a study of nurses' experiences in caring for persons with AIDS, or those infected with HIV. If you have cared for such patients and are willing to talk about your experiences, please call Linda Reutter at 433-3171, or 492-5935.

APPENDIX B: INTERVIEW SCHEDULE

1. Tell me about your first experience in caring for a person with AIDS (or HIV positive).

Prompts, if necessary:

- How did you feel about caring for this patient?
    - Events and circumstances surrounding the experience [context-other events; choice-what led to decision to care for patient; preparation]
    - Thoughts, concerns, feelings
    - How concerned about getting exposed to HIV?
    - Different from other patients
    - Changes during encounter

- What do you think made you feel that way?
    - Experience-personal and professional
    - Family commitment
    - Professional commitment: issue of choice re caring for PWAs

- How did your family/significant others feel about your caring for PWAs? [enumerate for different family members]
    - Why do you think they reacted the way that they did?
    - How did you feel about their response?
    - How did it affect your relationship with them?
    - How much did you tell them?
    - How did it affect your feelings about your work?

- How did you deal with your feelings ?
    - What was helpful? Not so helpful?
    - Were there any particular people who helped/hindered you?
    - How do you feel your concerns affected your interaction with patients?

- Describe how you cared for this patient.
    - What was most difficult? What helped/hindered you to deal with the situation?
    - What was most positive?
    - Use of protocol: when violate or ignore; who would you tell if exposed?
    - Different from other patients
    - What went through your mind as you cared for patient?

2. Tell me about a recent experience(s) caring for a PWA (or HIV positive).

Prompts, if necessary:

- How did you feel about caring for this patient? How have your feelings changed over time?

  - How have your personal values and beliefs been challenged?
  - Has caring for PWAs influenced your feelings towards those at "high-risk" for AIDS?

- What do you think contributed to your feelings?

- How did your family/significant others feel? [enumerate for different members]

- How did you deal with your feelings?

- Describe how you cared for this patient.

NOTE: The following demographic information will be collected at the time of the interview: age, education, nursing experience, and family constellation.

APPENDIX C: CONSENT FORM

Project Title: Coping with the Threat of AIDS: Nurses, Significant Others, and the Risk of Contagion

Investigator: Linda Reutter, R.N., Ph.D. Candidate, Dept. of Sociology Phone:
492-5935(work)
433-3171(home)

Supervisor: Dr. H. Northcott, Professor, Dept. of Sociology, University of Alberta Phone:
492-0479

The purpose of this research project is to increase our understanding of nurses' experiences in caring for patients with AIDS. This study is being done as part of the requirements of a Ph.D. in Sociology at the University of Alberta.

The researcher will want to hear about your experiences in caring for patients with AIDS. There will be one or two interviews. Each interview will last approximately one hour, and will be tape-recorded and transcribed. The information obtained by your participation will be kept confidential, and will not be shared with agency staff or administration. Your name will not be included on the tapes or transcripts. During the study, only code numbers will be used to identify the interview tapes and transcripts, which will be stored in a locked filing cabinet. At the end of the study, the code list will be destroyed. The information you have given will be stored in a locked filing cabinet for possible future analysis by Linda Reutter. Before the information is looked at again, however, the researcher will obtain permission from the appropriate ethical review committee. The dissertation and publications, containing anonymous quotations, will be available to all, but your name will not be associated with the research in any way. Your identity will remain anonymous through the use of pseudonyms, and by distorting identifying details.

You are free to not answer any specific question, and may withdraw from the study at any time, without penalty. You are free to ask the researcher questions regarding any aspect of the study.

While there may be no direct benefits to you for participating in this study, it is hoped that the information will be used to help nurses care for patients with AIDS, and to ultimately benefit patient care.

Your cooperation and time in participating in this study is greatly appreciated.

Authorization: I have read the above and agree to participate as a volunteer in the above project. I have been given the opportunity to ask whatever questions I desire, and all such questions have been answered to my satisfaction. I understand that the researcher will make every effort to ensure my privacy and anonymity when citing the material.

____
Name of Participant

____
Signature of Participant

____
Date

____
Investigator

APPENDIX D: LETTERS OF ETHICAL CLEARANCE

DATE

TO: Linda Reutter
PhD. Candidate
Department of Sociology

FROM: [NAME OF DIRECTOR NURSING]

I am pleased that your proposal has been approved for implementation and that [NAME] has been appointed to be the person to whom you will be responsible while you are collecting data within the hospital. If, for any reason, deviations from your outlined protocol are necessary, please discuss them with her prior to implementing them.

Please notify [NAME] when you have completed your data collection so we will know if and when other researchers can be accommodated. At the completion of your study, please send an abstract of your research to [NAME].

Thank you for your interest in conducting your study at the [NAME OF FACILITY].

[NAME OF FACILITY]

INFORMED CONSENT FORM

This is to certify that I am willing to comply with the right to confidentiality and anonymity of the [NAME OF DIVISION]. I agree not to include any information in any report of my study which may or does identify the location of the study (i.e., NAME OF FACILITY) without obtaining the consent of the [DIRECTOR OF NURSING].

Signature of Researcher

Signature of Witness

Date

INTER-DEPARTMENTAL CORRESPONDENCE

TO Linda Reutter

DATE April 10, 1989

FROM

L. Hayduk, Professor
Chair, Sociology Department Ethics
Review Committee
4-21 Tory Building

Subject: Ethics Review of

Project Title: Coping with the threat of AIDS: Nurses, significant others & the risk of contagion

Applicant: Linda Reutter

A Faculty of Arts review committee has completed its review of the above noted research proposal and I am pleased to report that the committee has found this proposal acceptable on ethical grounds, subject to the extra condition that you attempt to avoid disclosing the identity of the participants by having them call you or you calling them (after introductory talk) so that if their participation becomes know on the unit this is/was not due to your disclosure.

Sincerely,

Leslie Hayduk

L. Hayduk